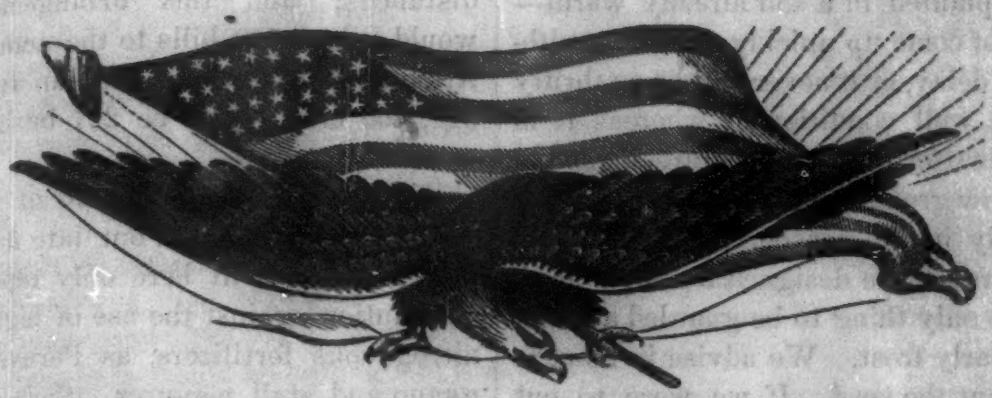

AMERICAN FARMERS' MAGAZINE.

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HINTS FOR THE MONTH.

THE provident farmer has before this time settled the plan of the Summer's campaign. As regards the details of farm work, they are to be settled from day to day, as the weather and the progress of the season demand. But what is to be the main business of the Summer, how many acres are to be grazed, how many to be mowed, on what fields corn is to be grown, on what each of the other crops, what stock and how much is to be summered, whether the old friut trees are to receive better treatment this than on former seasons, what new fruits are to be introduced, whether any great improvements are to be attempted either in the way of draining wet lands or of preparing uplands for a more profitable cultivation, what crooked fences are to be straightened, how many small ill-shaped lots are to be thrown together into one of better size and form, whether any forest land is to be cleared, or the growth of wood and timber encouraged on lands of little worth for other purposes, how much labor is to be employed, what immediate return can be expected, and how much his present means will enable him to do in paving the way for future increase of crops. These, and scores of like questions, have occupied the mind of the thinking farmer, and they may be supposed to be settled so far as relates to the coming season. The time for action is now fully come.

Potatoes—Time for Planting, &c.

With most of our readers, this work will have been done before this number of our Journal reaches them. If your potatoes are not yet planted, have them in the ground as soon as possible. Potatoes should be planted before, not after, corn, as the general rule. The character of the soil may in some cases reverse this rule. The reason is obvious; corn must not be planted in cold ground, and thus retarded in its early growth, but must

be planted in a soil already warm—must come up quickly and grow without delay, or it never will be as thrifty and well conditioned; whereas it is no matter how long potatoes remain below ground, or how slow the growth early in the season. (We except of course those designed for early use.) The only thing to be guarded against is early frost. We advise in no case to cut the seed. If we were to cut seed potatoes at all, it would be to pare off a little of the seed end, that there might be less shoots, and consequently less small tubers. Medium sized seed, whole, is best; and one in a hill is vastly better than more.

In planting a potato field, it is well worth while to harrow the surface over after the planting. This can be done, without disturbing the hills, if the seed is laid in the bottom of a five inch furrow. It may in that case be covered with the harrow, which should be light and have many teeth; or you may first turn a light furrow on the seed with a plow. If potatoes are planted three feet apart each way, there will be 4,840 hills to the acre. If the rows were three feet and the hills eighteen inches, 9,680 hills would have to be covered, one at a time, if done with a hoe; and this, at the rate of sixteen a minute, would require a full day's work of ten hours, while a boy with a horse and a harrow adapted to the object, would cover them quite as well in one hour, provided the ground had been previously cleared of stones and other obstructions—as we believe it should be.—Another estimate of the number of hills on an acre would be to place them at three feet one way and two feet the other. These are very good distances; and this arrangement would give 7,260 hills to the acre.—At one quart to each hill on an average, the crop would be 227 bushels an acre.

We have said so much about the manure for potatoes in our late numbers, that we will here only repeat our caution against the use of highly nitrogenous fertilizers, as Peruvean guano and stall manures. Carbonaceous manures, such as any decaying vegetable matters, with a few ashes, or such a mixture of ashes, lime, plaster and salt, as we have often recommended, is safer and better.

If potatoes are covered with the harrow, or first with the plow, and then harrowed over, it is an excellent plan to harrow the ground again a little before the shoots appear, as it will leave the surface fresh and clear, and will much diminish the labor of weeding. The first hoeing of this crop should be done with as little meddling with the plants as possible. At the second hoeing, hill them slightly, and then by no means touch the hills again. *Potatoes should not be hilled but once*, and then to no great height, especially if planted four or five inches deep.

Indian Corn.

The facts stated in our last, on the authority of the United States census, that almost 600,000,000 bushels were grown in this country in 1850, that probably not less than 900,000,000 bushels will be grown the coming Summer, in case of a good season, in connection with the fact, that almost every farm, North, South, East and West, is devoted in part to its culture, especially when we consider that the demand for the article as food for

man and beast, for starch manufacturing and for exportation will in all probability keep pace with the supply, go to show the importance of this crop, both in a national and an individual point of view. There are few farmers who do not feel that success with the corn crop is an important part of their anticipated success for the year; while, with many, a failure here would be equivalent to a loss on the whole year's work.

We have before expressed the opinion, that while the growing of fifteen or twenty bushels an acre, in extreme cases, where the character of the land, its location and its low price seem to forbid, or at least not to favor, an expensive cultivation, may be a paying business, yet the aim of the farmer should in most cases be much higher —running from thirty bushels to four or five times that amount; and we positively believe that if each farmer in the land, instead of calculating how cheaply he can cultivate each acre, would rather ask how much he can expend on it, and yet so as not to diminish the net gain over all expenditures, the result would be a crop for the coming year of at least fifty bushels to the acre, and not, as in 1850, of less than twenty bushels, on the average.

If the country at large is to grow 900,000,000 bushels this year, which will be the most economical of labor and fertilizers and all other expenses of its production, to grow it at the rate of fifty bushels an acre, on 18,000,000 acres, or at the rate of twenty bushels an acre, a fraction more than the yield of 1850, on 45,000,000 acres? We say the former would require less labor and not more fertilizers in the aggregate, though more per acre; and would leave more land for pasturage and other purposes. It would therefore be the cheaper mode of production.

But let us come to the case of individuals. Each of our readers means to grow a part of the 900,000,000 bushels which the nation will probably grow this year. You have an aim in this matter. It is impossible that you should roll up you sleeves and go to work, with no thought as to what you will accomplish. Suppose you mean to grow five hundred bushels, that this is a part of your plan for the year, and that, with a due submission to a higher power, your aim is to accomplish it. On how many acres should you undertake to grow the five hundred bushels? That of course will depend upon the soil, upon its location and upon its value. If you have a strong soil, very retentive of manures, but also very hard to cultivate, you should lay your plans to grow the five hundred bushels on five acres.—Such land—and there is a good deal such—you cannot afford to cultivate for less than a hundred bushels to the acre, for the very good reason that the growing of less will not pay, and the growing of that amount will. We know a great many sections where the farmer brings his acres into a proper tilth for the corn crop with immense labor—so hard and stony are they; but he then adds manure in great quantity—gets a great crop—and is contented, knowing full well that his land so treated will continue to give good crops for a succession of years, without further manuring.

But again; suppose your land not to be of that rocky, hard, obdurate

character, so very hard to cultivate, and yet of sufficient solidity and compactness to retain manure pretty well. You can afford to cultivate more than five acres of this land for five hundred bushels of corn, but you cannot afford to set apart fifteen acres of such land, worth perhaps one hundred dollars an acre, the annual interest at six per cent. being ninety dollars, and then run over it in such a way as to get only your five hundred bushels.—Ninety dollars, or even half that, on the supposition that you value the land at but fifty dollars an acre, is too much to be set down as interest against five hundred bushels of corn. The plowing of the fifteen acres at one dollar and sixty-seven cents an acre, and you can hardly do it for less, amounts to twenty-five dollars. That is also too much for the crop.—And so you may go through with every item of expense: interest, taxes, fencing, cultivating, harvesting, and you shall find that every item will come too high proportionally with the value of the expected crop. The upshot of the whole is, that you cannot afford to cultivate fifteen acres of good land for five hundred bushels of corn.

But suppose you undertake to get the five hundred bushels from seven and one-half acres. This would be at the rate of sixty-six and two-thirds bushels an acre. Now the interest, the taxes, the fencing, the plowing—indeed almost every item of cost will be but half as much; and about the only items of expense that will be increased, will be the extra manure and a little more careful and thorough cultivation; and not so very much extra manure will be required, for as you use but half as much land you can apply twice as much to the acre, at the same cost; and as to cultivating an acre well, it is not half as expensive over cultivating it shabbily, as most persons, who have not tried both, are apt to think. The man who cultivates thoroughly drives his work; if he was to cultivate shabbily, his work would drive him; and ten to one the sheriff would be sitting in to drive him off his farm before many years. Who of us would not rather *drive* than *be driven*.

If your land is of a still lower value, you might be contented with sixty bushels, or even fifty, per acre; and we have already admitted that there are lands, so low in value, so little retentive of manure, and so out of the way of an expensive cultivation, that a sound policy might admit of their cultivation for a much less crop. But these are the exceptions. The general rule is to aim at fifty bushels and upwards, according to the goodness of the soil. Probably the avarage yield has been increased since 1850. Let every farmer do his part towards giving it a lift this year. It should be at least fifty bushels this year and sixty next, in case of good seasons.

We do not believe in planting and hoeing and harvesting at random. An object should be before the mind; a definite plan should be acted upon; a reasonable expectation should be cherished; and every thing should be done to bring out a *pre-calculated* result. For reasons unquestionably wise, the elements may be permitted, as sometimes they are, to frustrate the best laid plans; but generally, if we plan wisely and act accordingly, the

reasonable expectation will be realized. We do not deny that crops accord with God's purposes, but we think that they also accord with man's doings. In the long run it comes out true that the reaping is according to the sowing.

Lay your plan then and carry it out. You can calculate before-hand, very nearly, what must be the manuring and what the cultivation to make this acre give you a hundred bushels and that seventy-five and another fifty; and you can estimate within a few dollars what will be the cost in either case, and what the net profit over all expense, with any given amount of crop, to which you may choose to adapt your cultivation.

Our object has thus far been to convince the farmer that a cultivation, adapted to the production of but a moderate crop, on good corn land, must be unprofitable, while that which aims at a large one, though more expensive, is also far more profitable.

Regarding the corn crop as one of the most important, and this as the very season to be thinking about it, we shall have more to say of its cultivation in other parts of this number.

Of the Farm in General.

Aim at a higher standard of excellence in all the farm operations. Doing things neatly and thoroughly pays better than doing them slatternly and at halves. Let the last particle of any thing, that, if left longer, would vitiate the air around the homestead, but would enrich the fields, if plowed under, be now put into the soil. Continue carefully to feed the working oxen, the horses and the milch cows. If cattle that are to be grass fattened are turned off early, some farmers think they will fatten the better for a little fasting and scouring in early Spring. This will not do for breeding animals, nor for those that are to give milk or do your Spring work. If the cow is to give rich milk, she must have more substantial food than a mixture of old, winter-killed grass with a little flashy new grass just now springing from the ground.

As the new grass springs up and becomes abundant, see that the animals have salt. Do not trust to your memory to give it once or twice a week, as you may think they need, but place a quantity of salt, where every animal may apply his tongue to it at pleasure. The animal knows when he needs salt a great deal better than you do, and will never eat too much, if it is always on hand. Give the calves a little meal or oil cake, when weaned and turned off to grass. The suckling ewes should be carefully fed with roots or corn and a little good hay till the pasturage becomes good. The way to bring the butcher to your place with a liberal price for the lambs, is to feed the mothers well.

The Spring sowing is of course done before this time. Was the requisite top dressing given last month or the one before to the mow land? If it was, now is the time to smooth down any unevenness, and to make the surface ready for good work with the mowing machine. The idea, that all farm work is to be done by the hardest, that it is a sin to economize human strength employed in cultivating the soil, is fast going by. Thanks to the mechanical skill of the country,

Knox's horse hoe, with two men and a horse will effect more in the corn-field than five men without it; and it is certainly better than a stout span of horses, or a single horse, if the machine be small and light, should cut down the grass, than that human muscle should do the same. As for raking, two men and a horse, with a horse rake, will effect more, with it, than three men without.

We are not going to dissuade farmers from work. Who that knows anything (knows "bran" we had almost written) does not know that industry is happiness. Yet there should be economy in all things, and why not in human labor. Industry is life and happiness. But excessively hard labor is not desirable for its own sake. We have no patience with men who would economize every thing else, but are suspicious, skeptical, grumbling, the moment when an ingenious contrivance is presented for mitigating the severity of farm labor. Why, our world ought to be ashamed of itself that easier and more expeditious ways of performing the common operations of the farm were not devised thousands of years ago.

Carrots are a valuable crop for feeding purposes. You may grow all the way from two hundred to twelve hundred bushels to the acre. Some tell of growing sixteen hundred bushels. Whether that is an untruth we are not certain. Twelve hundred bushels can be grown for a certainty. Who will try an acre this year? Select a strong soil, moderately moist. A turf will do, but land cultivated to a hoe crop the preceding year is better. Mellow the soil a foot deep or more. Manure very highly. A mixture of green and fermented manure is well, but if the soil is a good substantial one—what we should call good corn land—it may be enriched with any kind of manure. It should be plowed more than once, harrowed, worked over till the manure is well incorporated. The rows may be from fifteen to eighteen inches apart. At the latter distance, the cultivator or horse hoe can be used to better advantage. The plants should be thinned to one in six inches. Some would say a foot and others but three inches. At a foot, they will grow to enormous size. At three inches they will inevitably be small. Six inches will give a good size, and is on the whole the best distance. If we were going to cultivate entirely by hand we would place the rows twelve inches apart, and the plants six inches, and then would supply all the vacant spaces by transplanting. As there are 43,560 square feet in an acre, this arrangement would give 87,120 carrots, and if they were of such a size that seventy-two would make a bushel, there would be 1,200 bushels on an acre. But when we say that 1,200 bushels can be grown on an acre, we say it only because we know that this has been done, and what has been done, can be done again. The cultivation of an acre for such a result would cost more than the cultivation of an acre of the ordinary field crops, perhaps more than two, but the crop would be found of great value, and land would be left in high order—a thing that should always be taken into the account—inasmuch as large doses of manure are not expended in the growth of the first crop.

We cannot close our hints for the month, without reiterating that the garden and the orchard are important parts of the farm but too apt to be neglected. Half an acre highly cultivated as a garden and an acre or two as an orchard require much labor, but no portion of the farm affords as much pleasure, or makes as rich a return in the substantial elements of living. Don't neglect the garden and the orchard. More of this under our Horticultural head.

DITCHING.

Bolivar, Miss., March 25, '59.

Mr. Editor: I suppose everybody in the country knows how to make a ditch, but there is a great difference in the lands where ditches are wanted and a great difference in the way a ditch is made.

Some lands have a natural fall, and all that is necessary, is to make the ditch to collect the water; while others have hardly any fall. Of the latter class are some of our plantations in the Mississippi bottoms.

I have followed ditching for the last eight years, and consequently ought to know something about it—but I am far from knowing all I want to know. When I look at the place where the water is to be taken off and at the place where it is to go, I can tell distinctly whether the water will go that way or not, and how much fall there is between the two places.

I made a ditch to drain a large Cypress brake, or swamp, the water out of which was to run into a little lake. To make sure of the fall there was, the owner got an engineer to survey the land; it took three hands to carry a chain, set stakes and blaze the trees, two days and a half, for which the engineer charged ten dollars a day, and ten dollors to put it down on paper for me to go by. He reported two feet fall. I started the ditch and let the water follow me up in the bottom. This gave me the level. I told the owner that my way to do the work right, was to let the water follow me as I progressed, unless there was fall enough to make it too deep above, which in this case (two feet) there was not.

I told the owner there was three feet fall, which, as it had been engineered, he did not believe. When the ditch was finished I had a depth of two feet and ten inches in the Cypress brake.

Now I would say to those who have level land, as in this bottom, or in the Western prairies, commence your ditch where the water has to go; carry the bottom level, by allowing the water to follow you up, and when your ditch is done the water will surely go down the ditch. It ought to go as deep as the lowest water in your creek or lake. The water in the ditch will then rise with that below and fall the same way. Where the ground is high, give more width to get your depth, for in low and level ground you want the ditch from two to four feet deep, if you can get it that deep. I have ditched through places which

were but a few inches higher than the water below, and in some places even as low, and then have got the water out. In heavy rains such places are apt to be filled up, but the water is sure to run off in a day or two.

Underdraining has not been started here yet, and I do not think it will answer, as the ground is too level.—We have only open ditches. Some planters run their ditches square, that is, their land is laid off in squares by ditches, in order to run out their rows at the ditches, or run with the ditches. I prefer to run the ditch in the lowest part of the slough, no matter how crooked the slough may be. I leave holes or gaps in the bank of ground I throw out, to let the water in the ditch. In extremely low places such gaps are kept open with the hoes, and the water furrows are opened through the ridges to let the water in at these gaps. W. K.

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If we understand our correspondent rightly, the owner of the swamp paid the engineer thirty-five dollars for ascertaining the amount of fall and putting it on paper. Rather dear, it strikes us, for so blundering a job, varying, as we understand it, ten inches from the truth.

It has been said that an inch is a great deal in the length of a man's nose. We should think ten inches a good deal—or rather a bad deal—in an engineer's calculation of so simple a matter as the one described. If we could not (in the absence of a spirit level, which, in such a case, would be convenient) make a water level, from almost any materials that might happen to be at hand, before breakfast, and ascertain the comparative height of any two places on a farm, if not very distant from each other, within less than ten inches, before the childrens' dinner-basket should be packed for school, or if we could not ascertain the same thing in one hour with simply a carpenter's square—a thing which is, or ought to be, in every farm-house—and a plumb line made by tying a pebble to the end of a needle full of thread—a small matter which any farmer could find in the family work-basket—we should begin to think we were not born to be an engineer.

A spirit level, sufficiently exact for the purpose of determining the amount of fall on a field to be drained, can be had for one dollar. A carpenter's square, good enough for all farm purposes, can be had for the same, or less. A plumb line, as good as the best, need not cost anything. A small modicum of ingenuity will enable any person, man or boy, to ascertain the relative height of two points of surface, within far less than ten inches.

But if neither of these is at hand, you can ascertain the truth very nearly in a still simpler way.—Make a water level. Out of a dozen ways, which would instantly present themselves to an ingenious mind, we will suggest one. Take a common floor board, or a ceiling board, five, seven or ten feet long, one that was dressed and jointed by a workman; nail it to a stake, sharpened at the bottom, with the grooved side up; you may nail it with a single nail in the center, on which it will turn for adjustment, or you may make it fast by two or more nails, calculating to adjust it to a level by moving the stake back and forth as is necessary. Now stick the

stake, with the board nailed across, about at right angles, at the upper side of the field. Fill each end of the groove with putty, beeswax, tallow, or any thing that is at hand that will stop water. Then pour water into the groove till the wood is pretty well saturated and till the groove is full. One end of the board should of course point to the place of outlet. Now adjust the board, still pouring in water to supply the place of that absorbed by the wood, till the groove is running over equally at both ends. Your board now corresponds with the horizon—is exactly level. Sight along the grooved edge to a stake set up at the place of outlet. Let another person stand by this stake with his hand on it, and let him move his hand up or down, as you signalize to him by raising or lowering your own hand, till you signify to him, by some sign previously agreed upon, right. Let him then mark the point where his hand touches the stake, and measure up from the surface of the ground. The difference between that height and the height of the groved edge of the board, is the amount of fall between the two points. A person with a tolerably good eye would hardly fail of coming within two or three inches of the exact truth, at the first trial. But if you wish to be still more exact, reverse the order and sight from the lower point to the higher. If in one case you make the variation thirty inches and in the other thirty-two, it is almost certain that the exact truth is not far from either of these, and probably between, say thirty-one inches.

A good carpenter for a mere trifle would make an instrument still better and that could be used with less trouble. It might be formed by framing strongly the end of one strip of board into the middle of another, the first piece say four feet long, the second eight or ten. It would be necessary that the boards should have some width, say four inches for the shorter and six for the longer, and that it should be kept housed, as otherwise the wood might spring in consequence of wetting and drying. The form would resemble the letter T, with the upright part shortened and the horizontal part lengthened. By setting the short arm into the ground, and plumbing it exactly, the long arm would become perfectly level, and might be sighted across the same as a spirit or a water level.

DEEP AND THOROUGH CULTIVATION.

A WRITER in the *Iowa Farmer*, by the name of Fast—and he is *fast* in the way of deep ploughing, but not too fast—says we ought to raise a great deal more corn to the acre, and recommends the following as a remedy, in part, for small crops:

"In the first place, make as large a draft as possible on the Farmers' Bank (the manure pile,) and when the plow is started, which should be a No. one article and no other, set it about one third or half deeper than usually is done on old land, say ten

or twelve inches, and with about two-thirds the width generally taken; then, if you have a good team, it is not very hard work to do your plowing first-rate, and if you have any taste for seeing work done just right, you will not return to the cut and cover mode of plowing again.—Harrow well; mark out in straight rows both ways, and then if you have good seed, as by all means you should have, laid carefully away since last Fall, so as to prevent the cob from freezing before it dries out, plant carefully, (with a good planter if you have one); when through take your team and go on it with a good heavy roller; roll smooth and by giving it a reasonable amount of work with the plow or cultivator in tending the crop, you may almost bid defiance to drouth or rain."

This writer should remember that four or five inches is about the average depth of what has hitherto been called deep plowing among us. Even in England, and on the continent of Europe the poughing is a little hypocritical — pretends to be deeper than it really is — and we always deduct a fifth from their account, and rather more from our own, believing from careful observation, that Europeans do not as a general thing pulverize the soil thoroughly to more than four fifths of the depth which their accounts imply, and Americans only about three-fourths.

Our fast friend—we can think of a farmer with such *notions* as his only a friend—recommends plowing nearly three times as deeply as has been the practice of even deep plowers in this country. We are not going to take him to do for this, for we believe he is right. We would only guard against too sudden a change, without considering what the sub-soil consists of. Some sub-soils contain abundance of the salts of protoxid of iron, and other matters too sour and cold to favor the growth of crops, till long exposed to rains and air, or neutralized by the application of an alkali in the form of lime or ashes; and even that "large draft" on the farmers' bank may prove inadequate to secure a crop the first year.

It may be said that if you deepen your soil all at once from three or four to ten or twelve inches, and lose the first crop, it is no matter, that you will be more than paid in the after crops. This might do for the retired merchant, who has money enough and more than enough; but the great body of American farmers can ill afford to plow deep, draw deeply from the manure heap and then wait years for the return. They need the return within six months of making the outlay.

We have generally recommended the deepening of a soil by degrees. We have said run the plough an inch or two deeper every year, and watch the effect. Apply if possible a dressing of ashes or lime to the surface, to neutralize any acidity that may be turned up. If the crops are increased more than the expenses of cultivation are, keep on till they cease to be so increased. This would seem to be a safe course; and it is one which we would still recommend to farmers of limited means; though it may not in all cases be the best.

To illustrate our meaning, sup-

pose you have a field that has been plowed four inches deep, and with twelve loads of manure to the acre has given you forty bushels of corn and other crops in proportion,. There can be no very great risk in plowing that land six inches deep and applying sixteen loads of manure to the acre, and ashes or lime on the surface of equal value with four loads more, equivalent in expense to twenty loads of manure, instead of twelve. This it must be confessed would increase the cost of cultivation, for you cannot thoroughly loosen and pulverize the soil two inches deeper than before without additional labor, and the eight extra loads of manure are a part of the farmers' bank. If he uses these on that field he will not have them for another. But if the corn crop should be increased to sixty bushels and the after crops proportionally, the extra labor and manure would be more than met; and the farmer might with great confidence venture to eight inches with twenty-eight loads of manure, for the next rotation, ten inches with thirty-six loads of manure, and so on increasing the depth two inches and the manure eight loads a year, as long as paying results should follow.

We may be thought over cautious by some. It may be said that the country is full of proofs, that we ourselves have published abundant evidence, that deep ploughing pays better than shallow, and heavy better than light manuring. All this is true beyond a question, as a general rule. Nobody within gun-shot of the age in which we live doubts that ten inches of warmed soil well filled with manure pays better than a scratched surface with a *pinch* of manure. The farmers who have practiced the former are maintaining their families in good style, educating their children, getting rich, growing large souled, elevating their profession; those who pursue the latter, unless rich by inheritance, are poor and *getting* poorer, unable to send a child to a good school, too hard up to pay for an agricultural paper, close from necessity, and do nothing to honor their calling. All this is but too manifest. It *sticks out*, is in alto relievo everywhere, can be seen by all who have eyes.

Why then, it may be asked, not sink the pough twelve inches at once and not wait till others become rich and you poor, through excessive caution? We answer, if you have abundant means, go ahead, sink the plough *all over in*, apply fifty or a hundred loads of manure for a rotation, douse in the lime and ashes to cure the bad qualities in soil new turned up, and probably you will come out well. But we are bound to say, that it is not yet proved that such a treatment of every soil will be followed by results convenient to a man of limited means. If therefore men in this condition will *feel* their way to a deeper and better cultivation, experimenting and *observing* as they proceed, we think they will come *surely* and not very *slowly* to the best course for them—to the one best adapted to their soil; and that, we believe, will turn out in ninety-nine cases out of a hundred, to be a course of *deep cultivation and heavy manuring*. If any say, it is in vain to talk about heavy manuring, since every farmer uses all the manure he has

and can use no more, we have only to reply, that heavy crops make more manure than light ones, and that it is very much at the discretion of the farmer, as we have shown elsewhere and mean to show again, whether he is to have only a few loads of poor manure, or several hundred loads of good, per year.

Those who think us over cautious, and would put down the plow from four or five to ten or twelve inches at once, would do well to choose the Fall as the last time for doing it, as there is much in the influence of Winter to correct those qualities of a soil just turned up, which might prove unfavorable to the first crop. If turned over again in the Spring, manured proportionably with the depth of the ploughing, and ashed; there can be no risk, which a farmer of plentiful means need fear. Our caution is rather for those, for whom it would be inconvenient to cultivate expensively, and then fail of a somewhat speedy return.

HOW TO HONOR A CALLING.

Some portions of the following, from our own pen, were published in another journal. We republish them for the reason that we believe the views important to our readers, and which we think they would do well to consider attentively:—

When Paul told his son in the Christian faith to "let no man despise him," he did not intend that Timothy should knock down the first man that treated him with disrespect, but that he should behave so much like a *man* and a Christian, that it would not be in human nature not to esteem and respect him; and when he spoke of magnifying his office, it was not that he would brag of it, but that he would fill it well; and so we apprehend it is to be of any calling. To fill it well, and to train the children born in it to fill it well or some other useful calling, is to magnify it; and there is very little danger but that, when the farmers of this country honor their own calling, and rear their children to honor whatever is good and useful, the world will appreciate it and them.

One of the most hurtful errors that prevade the country, is that which denies that the farmer is a *business man*. Speak of a business man, and people think you mean a merchant or a manufacturer, or some go-between who thrives at the expense of both. The merchant, they suppose is a very intelligent personage, a wide awake, sharp, thinking man. The manufacturer, they suppose is the same. If either of these is unenterprising, they concede that he will fall behind in the race, and it is so. But let any farmer undertake to answer all the questions that pertain to the cultivation of the soil, and he will soon find that his is a *business*, one requiring as much reflection, as much forethought, as much shrewdness, (not a shrewdness that only degenerates into low cunning, fraud, cheating,) as any other, and to which as much knowledge, as much

experience, as much keen observation, and, we will add, as much reading can be advantageously applied as to any other.

That the merchant should read the history of commerce and study the markets, but that the farmer should work; that the manufacturer should investigate the scource of his materials, the capabilities of his machinery, and the wants of the world, but that *the farmer should work*; that the mechanic should understand the philosophy of his trade to the core, but that THE FARMER SHOULD WORK, WORK, WORK, and when he has done working go to sleep, is a fatal heresy.

We have watched the farming of this and other countries for nearly half a century, always intensely interested in its welfare, desirous of its success, grieved by its failures, and we here affirm without fear of contradiction, that it is not the hardest-working farmers that have succeeded the best. Those who have been good thinkers, and *diligent* but moderate workers, have succeeded. God has so arranged the affairs of this world, that it is not best for any one man to do the work of two. He who undertakes it, thwarts the purposes of his Maker, and fights against his own interest. You may do a reasonable day's labor every day, and be none the less intelligent and manly for it. The man who is ashamed to do this is ashamed of his Maker's laws. But if you undertake two days' work in one day, you cannot be much of a man. Solomon said, "Much increase is by the strength of the ox," but he was too wise to say that a farmer will prosper just in proportion to the amount of his labor.

Some of the best farmers we have ever known were feeble men, actually unable to do more than a moderate day's work in a day; and we ascribe their success to the fact, that, conscious of their physical weakness, they have cultivated their minds the more, thought, planned, made their calculations well, laid out their work to be done at the best possible advantage, and so come out best at the end of the year, more than making up in head work what they lacked in that of a strong arm and a giant frame; and wherever we have known a farmer, with no vicious habits or unfortunate associations, to run a farm through and come out a pauper, he has generally been one of those stout able-bodied men, who could mow five acres a day with an old-fashioned scythe, and do other work in proportion.

We will not say that farming is a *genteel* employment. In the vulgar sense of that term, it is not as genteel as selling ribbons behind the counter. But it is as respectable; and will be more so, if the farmers will do justice to their convictions. It is compatable with the highest intelligence; and the very highest intelligence can be made to bear favorably on its results. If the farmers of this country will be true to themselves, nothing can thwart their onward progress. Neither merchants nor manufacturers, if they wished, as neither of them do, nor yet the army of middle men, as numerous and as meddlesome among us as the locusts and frogs in Pharaoh's bread troughs, could put them down, or prevent their avocation from becoming as honorable as it is useful.

Were all the farmers in the land within our hearing we would say: study your past in order to correct your future; read what others say, that you may have the experience of more than one man; be frugal of time, that you may perform a reasonable amount of labor, and have hours enough left to discharge every duty and to acquire and apply to your business a high degree of intelligence; and then give your sons such a start, that if possible they will outdo yourself. So shall you magnify your calling; and remember that not all the world can magnify it, if you do not.

HORIZONTAL WELLS.

There is hardly a tunnel miner in California, who could not teach many of us a lesson of value upon the subject of horizontal wells in place of those sunk perpendicularly into the earth. You may call this kind of well a tunnel if you please. Every such miner, almost, has had a too-truthful experience of the fact, that whether his tunnel is driven into earth or rock, one of his greatest annoyances, ere he reaches fifty feet into the hill or mountain before him, is the presence of water. From every pore of the earth and every fissure of the rock, the dripping water accumulates, and in many instances in sufficient quantity to furnish—by being detained in reservoirs—the water for washing his auriferous earth; and when not in sufficient quantity for this purpose, would often supply hundreds and even thousands of gallons of water every twenty-four hours.

In many situations, along our narrow valleys, the farm house and buildings are located at no great distance from the foot of the hills and ridges that bound them on either side; and sometimes, doubtless, with the very view of rendering available the water from some pure spring, issuing from their sides. It is in such localities or in the immediate vicinity of abrupt hills, rising high in the back ground, and where no springs are found, that the horizontal well or tunnel is peculiarly practicable.

The advantages of such a tunnel over the common well are these: they can be constructed generally at a less cost than attends the construction of the ordinary well. They can be run in at such an elevation that the water, conveyed in a pipe, can be carried to any part of the farm buildings; or such a pressure can be secured as will enable the possessor to ornament his grounds by a *jet d'eau*, or fountain; or he can water, in the evening, by an artificial shower, the little lawn devoted to perpetual green. There is a greater certainty that water will be found at all seasons purer than much that is collected in wells. The common well usually excavated in the immediate vicinity of the farm house, necessarily contains water that, to some extent during the rainy season, has filtered through the immediately adjoining soil and taken along with it more or less of its impurities; hence the necessity of cleaning out wells at intervals.

Not so with tunnel wells; their water is always clear; no flood effects their purity, or protracted drought the quantity of water they furnish; and it is far more likely to be what is usually termed soft water, than when obtained from wells sunk in a clay or earth composed, to a great extent, of the debris of alkaline or limestone formations. The mouth of the tunnel, secured at all times by a door under lock, would be safer against the admission of all foreign substances, detrimental to the quality of the water, than is the ordinary well, thereby securing to the consumer an article as pure as from the natural spring.

Many suppose—without making inquiry—that the cost of pipe, for the conveyance of water from such situa-

tions to the farm buildings, would be too great to warrant the expenditure. To such, we say that half-inch pipe (we mean by this, pipe that is half an inch in diameter on the inside) is amply sufficient for all the purposes that water is used for around a single farm house and buildings, except for the purpose of irrigation; and if reservoirs for its accumulation are provided, it is astonishing to the uninitiated how much water will flow through even a half-inch pipe, if kept constantly running.

The convenience of having fresh water at all times of the day above ground, and susceptible of being conveyed to any height about the buildings—below the fountain head—by its own power, instead of being compelled to draw it from wells, is so great that even if the first cost considerably exceeded the construction of an ordinary well, the advantages inseparable from the tunnel well, would be more than equal the difference in cost.—*Cal. Culturalist.*

There is good sense in every word of the above. We have often thought of it, and have desired to commend the excavation of horizontal wells to persons living at or near the foot of abrupt hills. The form of the excavation we have supposed should be that of the letter V inverted,—thus: Λ,—the walls to arch inwards and meet at the top.

In many cases, we verily believe, the expense would be less than that of a well dug perpendicularly, and in few places, where the hill is abrupt, and the buildings near, would it be much more. It is a very common thing for water to be found nearer the surface on the slope, or even on the summit of a hill, than at its base. Now if you will go a few rods up the slope of a hill near your buildings—sufficiently high to give a good head—and excavate horizontally, you have a good prospect of a gushing fountain of the purest water, perfectly at your command, and that can be made to flow by its own weight—not to be lifted—to your house and barn, to your garden, and even to your chambers, if you like. How much better than a well.

We have often desired to broach the very same thing, but have been deterred by the fact that the world is so wedded to old ways, and so slow to see and admit that a new way may by possibility be as good. Thanks to the editor of the *California Culturist.* We suppose he has more courage.—May many a rural dweller seize upon his suggestion and make both money and comfort out of it.

POULTRY EXPERIENCE.

We cut the following from the *California Farmer*, with a view to remark very briefly on the notions of the *London Cottage Gardiner* about corn as food for hens:—

A New Hampshire lady writes to the *Journal of Agriculture* of that State, that she had eleven hens, which for the six months, commencing with the first of January, laid 978 eggs, which sold at 17 cents per dozen. During that time their feed cost six bushels of oats at 50 cents a bushel, and four and a-half bushels of corn at 75 cents, or a total of $7.50, leaving her a profit of $6.50.

The *Michigan Farmer* in noticing the above, says, eggs here during the past year, have not ruled higher than at the rate of eight and ten cents the dozen, and if laid at the above rate, the eggs would not have done much more than pay for the food consumed, but which latter would have cost somewhat less than the New Hampshire estimate.

[Who amongst our California ladies, says the *California Farmer*, can furnish us with the amount of their products in the poultry line?]

Indian Corn for Poultry.—If chickens are fed on Indian meal, they become very fat; but they make neither bone nor hard flesh, as if they were fed on oat-meal. Adults fed on Indian corn or meal become enormously fat, especially inside, and frequently die from it. This fat melts away in cooking, and the lean of an animal fed on it is hard and badly flavored. Numerous experiments have been tried on poultry, and this is the invariable result.—*London Cottage Gardiner.*

Remark.—Pshaw.

DUTCH COWS.

We learn that Mr. Cheney, of the Highland Stock Farm near Boston Mass., has made two importations of Dutch cattle, consisting altogether of three cows and one bull. They were selected from the best herds in Holland. Mr. C. informed the editor of the *Veterinary Journal*, that "Lady Louise," when in poor condition and very lame, has given over twenty-five quarts of rich milk, when on grass alone, and milked morning and evening only. By high feeding and milking three times a day, she will produce from thirty-three to thirty-six quarts per day. Mr. Cheney is so well satisfied with these Dutch animals, that he proposes to send to Holland for more of them, in the Spring. He also has a large herd of hogs, which he imported from the same country, that he considers very valuable for farmers.

There can be no question that the true policy of this country is, to breed from our native stock—to breed *out* those bad qualities which long inattention to all correct rules of propagation has produced, and to breed *in* such qualities as we desire, and to persevere in this, till these desired qualities become fixed and permanent, unalterable, so long as due care and proper feeding are practiced, for no good qualities will abide and be transmitted from parent to offspring, without this proviso.

But such a course does not promise a very speedy return. Breeders are shy of it; and the time may be long before we shall raise up from our native stock (cattle whose ancestors have been long among us) better breeds than Europe has yet seen. We therefore rejoice in all judicious efforts at renovating our stock by the infusion of foreign blood, believing however, that the importation of a few very choice animals as Mr. Cheney is doing, to become the basis of an improved breed is the true way to proceed. Success to his efforts, and those of others who are doing the like. In the meantime let every farmer consider, that, without any killing expense, he may greatly improve his breed, (and the process need not be so slow that he will finish life without seeing the result), by caring more considerately for his animals, feeding properly at all times, selecting and coupling with judgment, and taking special care for the mothers and their young.

BLUE GRASS FOR STOCK.

Many farmers complain of the length of the feeding season, in Central and Northern Illinois. So far as this applies to this section of the

State, we think it can be remedied by the cultivation of blue grass pastures. Our wild prairie grass is slow at starting in the Spring, and is not worth much for some time after it appears. Not so with blue grass. It is the earliest to make its appearance and the latest to give out in the Fall. By properly protecting it, and allowing nothing to run upon it in the Fall, it might afford pasture during much of the Winter season. The farmer who will cultivate largely of blue grass, will save about two months' feeding every Spring. We know several of our Sangamon farmers who have tried blue grass pastures and with the best results. We say to all our country friends—try it.—*State Journal*, (Ill.)

THE RIGHT NOTION.

An old, stopped subscriber, on returning his name for our list, says:—

"Sir:—Enclosed you will find one dollar for your valuable Magazine. I have been a subscriber for it several year, (six, I believe.) I thought that I would try and do without it this year. I subscribed for the *North Western Farmer*, and I like it very much, but I concluded that I would not do without the American Farmer's Magazine for the price of two such. It will not damage me if I should read both, for I consider that money paid for such a standard work is not thrown away; and if thousands of farmers would take such works they would never be poorer for it, but much more intelligent and happy. Please send the back numbers, for I do not wish to loose any of them.

L. S. S."

☞ Mr. Jacob Strawn, of Illinois, has earned for himself the reputation of "The Giant Farmer of the West." Twenty seven years ago he settled in Illinois, a poor man. His operations were small at first, but he continued to increase each year, until he had reduced over 30,000 acres of land to a state of cultivation. He has one farm of 7,800 acres, and another of 10,000. He has usually employed some 200 to 300 men, and a large number of horses. Every year, until quite recently, he has stalled from 5,000 to 6,000 head of cattle, and kept other live stock in proportionate numbers. In this twenty-seven years he has made a fortune of a million of dollars, and he is still hale and vigorous to enjoy it. He has one corn field in Morgan county, nearly six miles long, but has lately been curtailing his business, and converting some of his real estate into cash.

SANDY SOILS.

There is much truth and good sense in the following, which we cut from the *Maine Temperance Journal* where it is credited to the *Hallowell Gazette*.

A very large proportion of the arable lands in Maine are of a silicious or sandy texture. These lands possess a value for most purposes of cultivation, and are valued accordingly. For corn, rye, beans, potatoes, and many other crops, sandy loams are preferable to lands of a more ponderous texture, and when manured, rarely fail to produce with a liberality not often exceeded by any soil. Potatoes grown on the better descriptions of sandy loams are always of excellent, generally of superior quality; they come early to market, in consequence of the superior earliness of the soil, which may be worked almost as soon as the snow is gone. This fact renders sandy soils especially eligible for gardening purposes. But it often chances that the very best and most favorably constituted soils, of this description, may be greatly improved by ameliorants,

such, for instance, as clay of the purer kinds, muck, &c., which tend to give adhesiveness to the constituent particles, and consequently to augment the retentive powers. A good sandy soil ameliorated in this manner, and stimulated by a sufficient quantity of old, well decomposed animal manure, or by the application of good compost prepared expressly for the purpose, will invariably produce excellent crops of hay, clover, red-top, or timothy; and we have known instances where from two to three crops have been taken in one year. The quality of the hay was also excellent, being fine with a larger proportion of *foliage*, than is generally obtained in crops produced on a *stronger* soil. In forming composts for such lands, it is always judicious to make *clay* the predominating ingredient, or basis of the mass. This earth, when so used, acts as an alterant, and in conjunction with the putrescent animal and vegetable matters used, produces an ameliorating effect which no other assemblage of materials can effect. Ashes, lime, and gypsum have also a favorable action on sandy soils. In many cases where sandy soils are sterile, or only slightly productive, the sterility is in a great measure occasioned by deleterious acids. These may be neutralized by lime. Where lime cannot be economically applied in consequence either of its high price or the cost of transportation, common unleached wood ashes supply an excellent and efficient substitute. They possess powerful alkalescent properties, and if applied in sufficient quantities, rarely fail to produce the desired result. One objection which is often strennously urged againt this kind of soils is their want of depth. But this is easily overcome by a proper method of management under the plow. If the first plowing inverts only the vegetable stratum, the second should bring up and expose at least one inch of the subsoil. In this way, in the process of time, the vegetable stratum will be deepened, or *may be* deepened to an indefinite extent; the atmospheric influences, and the action of the manures appled annually, tending to enrich the newly exposed soil, and rendering it, in a very short time, strictly homogenious. When soils are managed in this way—with the addition of clay in compost, they become the most valuable lands for the cultivator, being quick, easily wrought, and less liable to suffer during seasons of excessive drought, than lands of a more close and ponderous texture. We have seen corn pass unscathed through a season of drought on such lands, when on heavier soils, the same crop was nearly destroyed.

SOWING PEAS.

S. R. Elliott, of Cleveland, says: "Some years since, I commenced with sowing peas, and covering them at different depths, varying from one inch to one foot. I found those buried eight inches deep, appeared above the ground only one day later than those buried only two inches; while those that were covered twelve inches deep, were a little over two days behind. As they grew no perceptible difference was noticed, until they commenced blossoming and setting, then the advantage of the deep planting exhibited itself; for those that were eight and ten inches deep continued to grow, blossom, and set pods long after those only two to four inches commenced ripening and decaying. If the soil is light and loamy, I will hereafter plant my peas eight to ten inches deep; if the soil is clayey, I would plant six inches. I never earth up, but leave the ground as level as possible."

Facts are stubborn things, and there is no disputing them; but it

would take a great many facts, to convince us that peas will come up through six inches of clay soil, or eight of sandy, and do better than if planted near the surface. Nevertheless it may be so; and every one can ascertain for himself whether it is, by trying a few hills. We would cover to a less depth, say two or three inches in a heavy soil and four or five in a light, till absolutely assured by our own experience, that deeper covering was better. The idea of planting peas, or anything else, as deep as the seed will bear, in order to avoid the necessity of high hilling, is a good one, and is specially valuable with regard to corn and potatoes. Cover corn two or three inches deep and the only reason for hilling it at all is, that the work of keeping clean is done most easily by throwing a little soil around the hills, either with the hand or horse hoe; and if potatoes are planted four or five inches deep in a well prepared soil, they need no other hilling than that of bringing, at one hoeing and but at one only, just soil enough to the plants, to smother any small weeds that can be so destroyed more easily than by stopping to pick them out.

BREED:—MEANING OF THE TERM AS APPLIED TO HORNED CATTLE.

BY C. L. FLINT, ESQ.,
Secretary of the Massachusetts Board of Agriculture.

The term "Breed," properly understood, applies only to animals of the same species, possessing besides the general characteristics of that species, other characteristics peculiar to themselves, which they owe to the influence of soil, climate, nourishment and habits of life to which they are subjected, and which they transmit with certainty to their progeny. The characteristics of certain breeds, or families, are so well marked, that if an individual supposed to belong to any one of them were to produce an offspring not possessing them, or possessing them only in part, with others not belonging to the breed, it would be just ground for suspecting a want of purity of blood.

If this definition of the term breed be correct, no grade animals, and no animals not possessing fixed peculiarities or characteristics which they share with all other animals of the class of which they are a type, and which they are capable of transmitting with certainty to their descendants, can be recognized by breeders as belonging to any one distinct race, breed, or family.

The term "native," or "scrub," is applied to a vast majority of our American cattle, which, though born on the soil, and thus in one sense natives, do not constitute a breed, race, or family, as properly understood by breeders. They do not possess characteristics peculiar to them all, which they transmit with any certainty to their offspring, either of form, size, color, milking or working properties. But, though an animal may be made up of a mixture of blood almost to infinity, it does not follow that, for specific purposes, it may not, as an individual animal, be one of the best of the species. And for particular purposes individual animals might be selected from among those commonly called natives in New England, and scrubs at the West and South, equal, and perhaps superior, to any among

the races produced by the most skillful breeding. There can be no impropriety in the use of the term "native," therefore, when it is understood as descriptive of no known breed, but only as applied to the common stock of the country, which does not constitute a breed. But perhaps the whole class of animals commonly called "natives" would be better described as grades, since they are well known to have sprung from a great variety of cattle procured in different places and at different times on the continent of Europe, in England, and in the Spanish West Indies, brought together without any regard to fixed principles of breeding, but only from individual convenience, and by accident.

THE ONION MAGGOT.

Mr. Editor:—The "onion maggot," although in itself a very small affair, —not more than a third or half an inch in extent, at largest—is, in its effects immeasurable. In many places it blasts the crop entirely; and where it does not, the fear of its approach, paralyses the arm of the cultivator. When a man has been accustomed to realize a thousand dollars a year from the labor of himself and boys (not to speak of girls) on half a dozen acres, and is compelled to go back to the growing of corn and potatoes, at one fifth the profits, it makes a wide difference, at the end of a series of years, in balancing the accounts.

We have among us many industrious cultivators, with little pretensions to skill or consequence in the community, who, by steadily minding their own business, have secured to themselves comfortable homes, and added to their permanent fund a thousand dollars a year, chiefly by the growing of onions. I have conversed with many of these, and they know not how to get rid of this destroyer of their crop.

I am very sorry you cannot prescribe a reliable remedy.

Truly yours,

Essex Co., Mass., *April* 12, '59. } J. W. P.

We are sorry too, and will give all diligence to ascertain how to destroy this "destroyer," and will make it known; but if any of our correspondents can get ahead of us in this matter, we will not be envious.

EGYPTIAN MILLET; or, PENICILLARIA SPICATA.

Mr. Editor:—As I have had some experience with this valuable plant for soiling, I propose to give my experience through the columns of your Magazine. In 1856 while traveling I found some of this seed, which I have raised every year since, with most satisfactory results. In 1857 I sowed ten rods of ground with the millet; about the last of July I commenced to cut and feed each morning (as the pastures at this time of year grow short) to five cows, which lasted six weeks, and a greater amount of vegetation I think never grew upon any piece. This same piece was cut twice after the same season. The flow of milk was greatly increased as soon as we began to feed the millet, and the quality as well as the quantity of the butter improved. Last season I fed a Durham bull upon this millet, and in four months he gained

320 pounds, or about 2½ a day. Horses and pigs thrive well upon it. By sowing a piece of ground with some crop to soil with during the summer, each farmer, might save several hundred weight of hay and leave his animals in better condition, as all animals require some green feed during the summer months.

The great superiority of the *pencillaria spicata* above all other crops I have yet raised for soiling, is in its producing several crops in a season. The fodder is finer than corn when sown, and is very sweet. I have got three crops in a season, as it will grow immediately up after cutting. The seed is about the size of herds grass seed, and from one of these I have often counted twenty-four stalks. Its inclination to produce and spread is wonderful. Any soil suitable to corn is adapted to millet.

F. H. WILLIAMS

SUNDERLAND, Mass.

THE AGRICULTURAL PRESS.

FEW persons appreciate the benefits of a well-conducted agricultural journal to the country whose resources it is designed to develope. The cant phrase, tinctured with a sneer, "*book farming*," is still sufficiently prevalent to show that agricultural literature has not yet accomplished its work. Still it has done much, and its successes annually multiply.

Forty years ago the "*American Farmer*," published weekly at Baltimore, under the auspices of John S. Skinner, was in embryo, its maturity and real birth being on the 2d of April following. In August 1822, Thos. G. Fessenden, of Boston, issued the first number of the "*New England Farmer*," also a weekly; and not long afterward Mr. Samuel Fleet commenced the "*New York Farmer and Horticultural Review*." These were all the agricultural journals in existence thirty years ago. Even as late as within the last twenty-five years, all the agricultural journals on this continent had not an aggregate circulation of 10,000, while at the present the aggregate is more than a quarter of a million. And beside this, the time has come when our best family periodicals, from the half-penny daily to the ponderous quarterly, find it to their advantage to have an "Agricultural Department" in their columns. For the influence of the Press, we refer to the improvements in every department of agriculture—the implements with which the work is done; the quality of the productions, and the profits of the enterprise. They are all as visible as the morning star. The time has come, and may it never depart, when, other things being equal, he who does not read a good agricultural journal, cannot successfully compete with him who does.—*Monthly Journal of the Cal. Ag. Society.*

HOW TO WATER A DRY FARM.

I HAVE a piece of land lying two miles from our home-farm, which had no water on it, there being a ridge on it twenty-five or thirty feet high. I discovered at the lower side of this ridge some moist places that did not dry up as soon in the Spring of the year as the rest of the ground. Here I commenced digging a ditch, water level on the bottom, and after digging a few rod, following the course of the water as well as I could, I found sufficient water: ten feet below the surface of the ground. I then filled it with cobble-stone. At the mouth of this ditch I made a stone basin, not more than a foot square inside. This was done about eight years ago. Since then we have had plenty of good and clean running water, that never fails—fit for man or beast.—*Rural American.*

The above well illustrates what we

have no doubt is a general fact, viz: that on hilly land, or land even that is but moderately uneven, a little investigation and a few experiments, (oftener the very first trial) would bring an abundance of pure running water. The family nearest the home of our childhood went for years across the street, through one gate and over one fence (by means of a stile) and down a step bluff, some ten or twelve rods, after all water for all family purposes, including a large dairy.—Behind their dwelling was an abrupt hill, extending far back and rising to a height of at least a hundred feet.—There is scarcely a doubt, that water might have been found on that slope, and brought to the house and barn, either by excavating horizontally, or by digging perpendicularly and using a siphon. What would be the worth of a full supply of pure water to such a farm-house and barn, over the way which there prevailed—that of bringing the water for the house twelve rods, uphill, in pails, and sending the cattle into a grove ninety rods from the barn for their drink?

FARMING WELL.

The great difficulty in the way of good farming is too much land. Farmers are so hurried in the getting in, and in the harvesting of their crops, that they really have no time to devote to the improvement of the soil. Let anyone visit some of the ten acre farms in the vicinity of Cincinnati, and the truth soon becomes apparent that more profit can be made from ten acres, properly tilled and manured, than can be realized from one hundred acres run over in the usual negligent manner. The occupants of these "ten-acre farms," are growing richer every year, while many who occupy large farms barely "hold their own."—*Ohio Valley Farmer.*

We see articles like the above constantly going the rounds of the papers. They are *true*, but are not the whole *truth*. That ten acre farms hard by Cincinnati, Philadelphia, New York or Boston, under high cultivation, by the labor of three, five or seven men, and with plenty of manure, give more profit than large farms half cultivated, no one, we suppose, doubts So if we go back far from these great centers of commerce and manufactures, it will be found that small farms well cultivated are more profitable than large ones badly cultivated, with little labor and a small quantity of fertilizers. All this is true. But what is the inference?—Are our farms to be cut down to ten acres? Would that tend to a higher cultivation? Farthest from it. The experience of France, where there are 11,000,000 of owners of the soil, as compared with Great Britain, where there are less than the tenth part of 1,000,000, shows quite the contrary. The experience of Ireland as compared with Scotland confirms the same thing. If you want to create a *peasantry* to be trod on, make the farms infiniteasimally small, and you will accomplish your object. But if you wish the farmers of the country to be high-minded, intelligent, full grown men, give them a field. The way to secure a better cultivation of the soil, is not to diminish the farms, but to increase the labor. Ten men, with such teams and machinery as a good sized farm require, but small ones forbid, will cultivate a hundred acres far more highly than one man can culti-

vate ten acres. While we believe that it is all very well, for such as prefer it, to cultivate five, ten, or fifteen acres well and get a good living from it, we as confidently believe that sound policy requires the great mass of the land to be in holdings of a hundred acres and upwards. "A little farm well tilled" is a good thing, but a good sized farm well tilled is a better thing, one that tends more to elevate the farming community, and more to promote the *permanent* prosperity of a nation.

READINGS AND SAYINGS.

At the American Institute Farmers' Club, 351 Broadway, N. Y., April 11th 1859, Judge Livingston in the chair.

Secretary Meigs read from a paper an article on the Irish prejudice against Indian corn. "This" says the article, "reminds us of the deep prejudice that once existed against potatoes, in the same country. Still later, Cobbet published a severe blast against potatoes. Now it is an almost universal article of food for large classes in Ireland, and is considered indispensable everywhere."

Birds.—Wilson, the great ornithologist, computes that a red-winged blackbird destroys, on an average, 50 grubs a day through the summer. Many other birds are equally useful to the farmer. No gold would buy the services performed by the birds. One often may be seen following the plowman hour after hour.

Lawton Blackberry.—A London publication speaks of the Lawton Blackberry in high terms, and says that it is about to to be introduced widely into England. It is spoken of as a distinct variety of this kind of fruit, heretofore unknown. The plants are sold in London at 2s. 6d. sterling—62 cents each, and seem likely to be as popular there as here.

Mr. Pardee.—Mr. Underhill of Yonkers, says that this is the sweetest of of all blackberries when ripe: the berries never should be pulled from the bush, but suffered to hang until ripe enough to fall by a little shake.

The Horse Hoe.—A. J. Hone of Sharon Springs has read so much about the "Horse Hoe" that he has been at last awakened sufficiently to inquire "whether it will hoe corn? and, is it capable of hoeing corn as effectually as a man with a hoe?" He is evidently astonished at what is said here about its capability to do the work of twenty men, and "wants to know what is the price of this new labor-saving tool in the improved art of farming, and where it is to be had?"

For his benefit, and the benefit of ten thousand other benighted American farmers, I will answer these inquiries briefly. The implement was contrived a few years ago by Mr. Knox, pattern-maker for Nourse, Mason & Co., the great implement manufacturers at Worcester, Mass., and is known as "Knox's horse hoe." Our correspondent may rest assured that it will hoe corn and every other crop, all that is needed, except picking the weeds from among the plants, and it it will do as good work as the hand hoe, just as fast as a horse can walk. And this invaluable implement indispensable to any man who plants an acre, costs only $7.

Curculio Remedy.—Judge Meigs—Here is an an article that gives a recipe for keeping off curculio: One pound of whale oil soap, 4 ounces of sulpher, mixed in 12 gallons of water; a half a peck of lime in four gallons of water; pour off the clear water after the lime is dissolved, and add it to the other water, adding 4 gallons of strong tobacco water. Apply the mixture with a syringe.

Henry Steele, a New Jersey nurseryman, said that he had prevented curculio by the use of black soap from the tallow-chandlers, dissolved in water and much dilluted, with which the trees are syringed directly after the blossoms fall, after a rain, and repeated if necessary in consequence of being washed off.

R. G. Pardee.—A person present assures me that a neighbor of his yarded his hogs around his plum trees, and that saved them from curculio. Mr. Pardee said that he thought that fresh cow or pig manure, dissolved, and the water sprinkled over plum trees, would prevent curculio. They dislike any strong-smelling substance.

Wm. Lawton.—You may apply cow or pig manure raw to all fruits and berries, but not horse manure: that never should be used fresh—make it first into compost.

New Bee-Hive.—E. W. Phelps exhibited his plan of bee-hive—the principal feature of which is that the comb is attached to slats in the hive so as to take out any one frame and sheet of comb without disturbing any other part of the comb. Old comb can also be taken out of any part of the hive. The cost of a hive is about $3.50. One hive in a room in this city made 60 pounds of fine honey one season. This hive differs from other slat hives in this, that the frames are in sections so as to divide a sheet of comb into small squares. He also exhibited a very ingenious protection against bee-moths.

The Jenny Lind or Wood's Potato.—Solon Robinson read from a letter from John C. Polley, Dewit, Clinton Co., Iowa, as follows:—

"In reading the report of the "American Institute Farmers' Club" of March 31, published in the the N. Y. *Tribune*, I noticed in a letter of S. W. Brown, of Brimfield, Hampden Co., Mass., that the potato known in market as the 'Jenny Lind' is Wood's seedling. I have often seen the Jenny Lind potato advertised, but did not know it was only another name for the Wood potato. Perhaps your Club will take an interest in the history of that potato, and as I am intimately acquainted with it, I will give it in brief. Isaac Wood, a farmer, living in Holland, Hampden Co., Mass., in the Fall of 1845 or 1846, gathered a few potato balls from the vines of the Peachblow potato, and the following Spring planted some of the seeds.—They grew feebly the first year, the tops bearing very little resemblance to those of potatoes. In the Fall he harvested about two quarts, varying in size from that of a grape to a crow's egg. There were three distinct varieties in this first crop. The following Spring he planted them in a sandy soil, and raised from one kind about ninety pounds, most of them of large size. The two other varieties yielded very little, and were not preserved; the former were carefully stored for

seed. Their appearance the second year from the original seed was the same as it is to-day; and it seemed as mature then as it was after years of cultivation. It had the same rough appearance then that it has now; the eyes were numerous and deep-set.—The next year, he cut those ninety pounds of seed in such a way as to leave but one eye on a piece, and put three pieces in a hill. The hills were a foot and a half apart one way, and three and a half the other. Seeding in this way, he had enough to plant one-fourth of an acre. The ground was dry and sandy, and highly manured. I saw them several times during the season, and have never seen a greater growth of tops than on that piece. It was impossible to tell, by the tops, which way the rows went, even while they were standing, and before they were thrown down by the wind and their own weight.—He harvested from that piece, one hundred and thirty bushels of potatoes; some of them were remarkably large, weighing from two to three pounds. He used of this crop only enough to test thoroughly their quality. The next Spring he sold them in small quantities to his neighbors for seed at an extra price. My father procured some of the seed, and raised them for many years and always considered them a valuable kind to raise, especially for feeding stock. They were not so good for table use as many other kinds; but they grow better toward Spring, and perhaps at that season of the year they are on an equality with our best varieties. They will go further in seeding than any other kind I now remember, and yield much better than the average. I think them a valuable addition to the already numerous varieties."

On renovating old Orchards, Mr. Robinson read a very interesting letter from a lady in New Bedford (Ruth H. Lynde) as follows:—

"Some years ago I lived on a small farm in New York State, and one of the inducements held out for hiring it was, that there was a fine apple orchard of choice grafted fruit. This decided—but the trees were in a miserably sickly condition, and the fruit scanty and mean, knotty and wormy. In the Fall, a circle was dug around every apple tree, nearly two feet from the crown and over a foot and a half in depth. Dressing from the hog-pen was put into each hole, until within half a foot of the top, and Anthracite coal ashes spread over up to the crown. In the Spring the trees were pruned; the orchard plowed, oats sown, and the crop of oats was fair—the trees bloomed more, but the fruit was scarce and still poor. That Fall, after the leaves had fallen, the trees were scraped—the trunks, branches and boughs—and the grubs scraped off that were in the loose bark sufficed to feed for two days a hundred fowls, consisting of turkeys, hens and guinea fowls. The fowls generally were in an inclosed place, and corn kept in a trough for their daily use; as the corn was untouched and the fowls healthy, my statement can be relied on. Next Spring, the orchard was a mass of blossoms, and so beautiful I never wearied looking at it. The trees were so laden with fruit that two of them split in the fork, and a person could not walk upright under them. I never saw such qualities of fruit

and fine fruit, too—Bell Flowers, Fall Pippins, Seek-no-Furthers, Summer Pie Apples, and so forth. This was fourteen or fifteen years ago.

The Cowslip having been spoken of as a beautiful flowering plant, suitable for cultivation in gardens and lawns, Andrew S. Fuller, Botanist and Horticulturist, of Brooklyn L. I., of the firm, Fuller & Bartlett, corrected; "the plant spoken of last, the *dodecatheon media*, or the American cowslip, is not the one that grows in wet places all over New England, bearing a yellow flower and known as cowslips, but an upland plant, which is very common at the West, and is worthy of all the praise given it."

Lime for Fruit Trees.—Solon Robinson—Here is another enquirer after knowledge. F. Hotchkin, of Sullivan County N. Y., wants to know if "lime in a liquid state is injurious to fruit trees?" He does not say how he wants to apply it, nor what he means by liquid lime, but he may be assured that lime will not injure fruit trees in any way that he pleases to apply it, on the ground, at the roots, or in powder on the tops, or in a liquid state on the trunks.

To Protect from Ants.—Wm. Davis, of Marengo, Morrow Co., O., offers the following plan for protecting fruit trees from ants, which he says have killed many trees for him. It is the same plan pursued in this city to make loafers, and then get rid of them—that is, feed them with whisky and make them drunk, and then wipe them out. He says: "Mix whisky, molasses and water, in equal parts, and fill a tumbler about two-thirds full, and set it partly in the ground at the foot of the tree infested by ants. When it gets full of the drunkards, scoop them out and kill.

Future meetings of the club will be held at the Cooper Institute, Uptown, the Star of Empire, &c.

ENCOURAGE THE BIRDS.

A GENTLEMAN at Mamaroneck, N. Y., in a letter to the *Country Gentleman*, says;—

"While hoeing in my garden the other day, I observed a small bird alight near a row of cabbages. He commenced at one end of the row, and making the entire circuit of every plant and examining carefully the under surface of every leaf, went through to the other end. His search was not unsuccessful, for he found and devoured worms or other insects from almost every plant. Now, no gold could buy the service, which the scores of these winged assistants that labour so diligently for me, perform so effectually without money and without price; giving me sweet songs without number in addition.—Reader, encourage the birds!"

MARKET FAIRS.

FAIRS, for the exhibition, but more especially for the sale, of domestic animals and farm produce have time out of mind been common in England and we believe in most European countries. The *Fairs* in each city and town are on stated days, the same from year to year, and besides are extensively published a little before the time of their recurrence. The farmers resort to them in great numbers for the purpose of witnessing each other's improvements, of learning the state of the markets, and more especially for the buying,

selling and exchanging of agricultural property. It is at these fairs that the farmer who wants to buy a horse, a yoke of oxen, cattle for stall feeding, beef, pork, butter or cheese, wheat, barley, anything in the produce line, is pretty sure to find another farmer who wants to sell the very article he is in pursuit of. The parties are brought face to face with each other; the intervention of a middle man is prevented; what one farmer gives for anything he purchases, another farmer gets, the whole of it, leaving the speculator on their earnings out of the mess. These fairs seem to be attended with good results only, in England. One would think they would be made gala days for drunkenness and rowdyism, but such does not seem to be the case. Our own observation, in attending them somewhat extensively, has been, that the *Fair* days are among the most sober, earnest, business days in the whole year. One we very well recollect in Oxford, which by the way is in the midst of a good agricultural district, where good farming thrives and is appreciated within the sound of some thirty college gong bells. Those who had nothing to sell or buy, as it seemed to us, kept away, while those wishing to buy, sell or exchange, came early, did up their business with dispatch, and before noon were seen scattering in every direction to their homes. By two in the afternoon all was quiet, and one would hardly suspect that there had been a great public gathering. Would not such fairs be a good thing for the farmers of this country? We have thought they might, especially for the older and more densely inhabited portions of the country, and we are glad to learn that in Springfield, Mass., a sort of experiment has been made, of which we find the following notice in the *Hampshire Gazette*:

The Market Fair at Springfield, on Wednesday, was attended by some 3000 persons. A large number of horses, milch cows, oxen, steers, bulls, swine, implements, produce, &c., were entered. The stock upon the ground both for exhibition and sale, embraced some of the very choicest to be found in the country. A large proportion of the cattle, and very many horses, were of the best blood, and in every other respect superior and desirable. During the day numerous sales were made, and a considerable amount of property changed hands. A large portion of the sales were effected on private terms. At 3 P. M. an interesting and appropriate address was delivered by Elihu Burritt, in the hall of one of the society's buildings, on the park grounds. Mayor Calhoun presided.

CATTLE BREEDERS' ASSOCIATION.

The convention which assembled at Hartford, Conn., on Tuesday, April 5th, at once, in its starting takes a position which certainly will command the respect, and we hope will secure the earnest co-operation of every breeder of thorough-bred neat stock in America. Our brethren of the agricultural press have already, some of them, expressed surprise that a call so general in its working should not have been more extensively circulated and more time given.

The facts are, that the breeders of Connecticut and Central Massachusetts having many interests in common and being more or less well acquainted, have felt the need of more acquaintance and of exactly that mutual support and protection which this association seems now likely to furnish. They have seen their

thorough-bred stock slighted at county and State Fairs, and preference given to animals known to be grades. They have seen committees viewing thorough bred stock and awarding premiums who did not so much as know there was a herd book or a scale of points, and they have known of unprincipled breeders, time after time, selling stock as thorough bred, to those who are ignorant of the value of pedigrees or unable to judge of them from their internal evidence, which were not thorough bred—an operation which is greatly to the discouragement of whoever commences the breeding of this kind of animals, and to the weakening of confidence in the whole system of breeding of thorough bred stock.

The movement was originated without very much consultation, only enough to ascertain the settled conviction that some firm stand must be at once taken by the breeders of this region; how far this necessity was so urgently felt by breeders in other sections was not known, and as but short time intervened before the press of spring work would render it very difficult for many to leave home, it was thought best to call the convention at once and give the call chiefly a local circulation. It was noticed in several prominent agricultural papers and in the local newspapers of Connecticut and the valley of the Connecticut.

The breeders who assembled were, therefore, chiefly from this part of the country; but after a comparison of views and aims, they found themselves supported by truths and principles which, if honestly carried out, will give any association an irresistible moral power. They are assured that the difficulties which breeders of thorough bred stock have had to contend against hereabouts are equally felt elsewhere, and as the only available means of security against fraud both in blood and pedigree, feel the action they have taken, cannot be local in its influence, and hence invite the cooperation of honest breeders throughout the land.

Exactly what the result of this will be it is difficult to see. This much is certain, the pedigrees of the stock of undoubted purity throughout this region will be at once submitted to the view of the committee on pedigrees, and be acted upon by them. We have the fullest confidence that this committee will act deliberately, impartially, and certainly, no matter whose stock is injured, or whose is benefited,—no matter whose frauds are exposed, or who is made to sustain pecuniary loss. The committee on pedigrees have before them a critical task. It is not for them a *delicate* duty,—not at all,—as we view it, there is no delicacy or glove-handling about it. Critical it is; and we believe that there are men on that committee who will neither swerve from the right, nor flinch, nor tire, till every doubt is cleared up or confirmed, and the association are in possession of the facts—their own or the breeders' feelings having nothing to do with the matter one way or the other. If in this they can feel that there is a moral power behind them, that will bear them out, if they can feel sure that the men who placed them in this position will sustain them in their just action,—and they will,—we foresee that the action of this convention will completely change the character of trade in thorough-bred stock in this country.—*Homestead.*

THE AYLESBURY DUCK.

Of white ducks, the Aylesbury is the best, and is very pretty, with its snowy-white plumage, yellowish legs and feet, and flesh colored bill. It is also large—one of the largest of the duck family—and excellent for the table. The name is derived from the town of Aylesbury in England, in which neighborhood they are kept in large quantities for the supply of the London market. Bement says: The

weight of the adult Aylesbury duck should at least average, if properly fed, from ten to twelve pounds the pair (duck and drake). Instances, however, have occurred where the drakes have come up to eight pounds and upwards, and would in all probability, if fattened, reach ten pounds each. They are very prolific layers. From two of these ducks 300 eggs have been obtained in the course of twelve months; in addition to which, one of them sat twice, the other only once, the three nests giving thirty young ones. The eggs vary in color, some being white, while others are of a pale blue. As a farther rcommendation for them, in an economical point of view, it is argued that their consumption of food is less than that of the common duck; and another advantage may be found in their comparative silence from the continuous "quack, quack, quack," of the latter bird. They also attain greater weight in less time; and, from their superior appearance when plucked, are a far more marketable article.—*Rural New Yorker.*

From the Ohio Cultivator.

A FARMER'S TALK TO FARMERS.

Having carefully noticed what has been said in the Ohio Cultivator and other papers, concerning the backwardness of farmers, and not forgetting to tell what they might be meanwhile, has led me to reflect upon this subject more than heretofore. And now, brother farmers—readers of the Ohio Cultivator—it is my purpose to hold a friendly chat with you on this subject. And allow me to begin by asking: why need we be a whit behind the very chief of them? I believe the farmer possesses about as many advantages, after all, as any other one. But to the disgrace of some farmers, they are not intelligent; they have a kind of horror of book-farming and Ohio Cultivator farming, and all paper farming. But the matter does not stop here. I think many of them feel offish at papers and books in general. How little such people live for! "How long, ye simple ones, will ye love simplicity, and the scorners delight in their scorning, and fools hate knowledge!" This is the reason that so many farmers' families are destitute of books and papers in general. Gentle reader, did you ever visit any of the abodes in this blessed land, where knowledge is almost pressed upon them, and not think of this Scripture: "When wisdom entereth into thine heart, and knowledge is pleasant unto thy soul?" If so I will say it has occurred to me a thousand times. And for me, I cannot see why farmers cannot share in all this blessedness of wisdom as largely as any other class of men. It is my honest conviction that farmers might be the most blessed and knowing class of men; as a gentleman once told me, "There is not a farmer's boy but wastes time enough to get him a college education." You need not even be behind your preacher in ethical knowledge, and it will cost you nothing but the pleasure of reading, which, by the by, is not small, when once a love of knowledge is pleasant to the soul. There is time enough wasted—yes murdered—by us farmers, to learn all of general importance that has ever been done in the world—enough fragments of time thrown away, to study all the philosophy you need to know; and you dare not contradict me, when I say that your boys spend in the store, grocery, or places of amusement, or worse, time enough to read all that is in the Ohio Cultivator, and three or four other good agricultural, family, or religious periodicals, and many useful books. "I speak that I do know, and testify to that I have seen." Gabriel McWilliams.

Holmes Co., O.

☞ It is said that the Israelites of New York are about to build a temple that will rival in extent and magnificence Archbishop Hughes' proposed Cathedral.

THOROUGH TILLAGE.

At one of the Irish Agricultural meetings, one of the speakers remarked—and the truth may well be applied to this country: "What brought out the immense agricultural wealth of Scotland; and what enabled the small farmer in Belgium, who, on seven or eight acres of light sandy land, was able to do better for himself and his family, than we can do on twenty or thirty acres of land in this country? It was not by allowing three-fourths of a light tillage farm to remain in poor herbage, and making the other portion pay the the rent. It was because the farmers in those countries he alluded to, make agriculture a study, a duty and a pleasure, and because farmers till their land to the best advantage, and because no man there would keep one single acre of land more in his possession, than his capital and his means would enable him to cultivate."

FENCING LANDS.

Mr. Editor;—On looking over the communications of your correspondents, I perceive there is one farm of one hundred acres, on which there has been built more than four hundred rods of substantial stone wall, at an expense of two dollars per rod. If these walls were erected on the borders of the farm as it adjoins other owners, I have nothing to say against this building; but if for the purpose of subdividing the lands of the farm into small lots, allow me to say, the expense is worse than useless. I know of farms, where the owners were so fond of solid fences, that the fences have cost more than the farms are worth including all the fences thereon. Can this be a commendable application of labor? I know of farmers who have spent the greater part of all leasure time for twenty years, in digging stone, and building up stone walls; and when they have no new walls to lay, they will set about relaying the old. Such men earn the reputation of being laborious and industrious, but they labor for little benefit. Better take away one half of their division fences, than to put up new ones. Such fences are greatly in the way of successful culture.—*New Hampshire Journal of Agriculture.*

To keep Potatoes from Sprouting.—To keep potatoes intended for the use of the table from Spring, until new potatoes grow, take boiling water, pour into a tub, turn in as many potatoes as the water will well cover, pour off the water, handle the potatoes carefully, laying up in a dry place on boards, only one layer deep, and see if you do not have good potatoes the year round, without hard strings and watery ends caused by growing. The neighbor I got my information from says he has never failed, or had any trouble from rotting or sprouting. Try a few.—*Cor. Prairie Farmer.*

CATTLE BREEDERS' CONVENTION,

At Hartford, Conn., April 5th, 1859.

Pursuant to the call which has been published in *The Homestead* and other papers, this convention met and organized.

Henry A. Dyer, Cor. Sec. of the Conn. State Agricultural Society, by request, called the meeting to order; Norman Porter of Berlin, was elected temporary chairman, and M. C. Weld, of Hartford, clerk, *pro tem.*

On motion of Mr. Dyer a committee was appointed to report officers of the convention, to present business, and also to prepare a constitution for a permanent organization. This committee consisted of H. A. Dyer, Jabez S. Allen, David Mosely, Ambrose Bowen and John Brooks, Jr.

The committee retired and soon reported the following resolutions, which were passed after some discussion:—

Resolved—That all breeders of thorough-bred stock shall have a vote in this convention; other breeders and members of the agricultural press are invited to sit in convention and without vote.

Resolved—That gentlemen are requested to hand their names to the secretary with their residence and the class of cattle they are breeding.

A resolution was offered, extending the import of the term "stock," as used in the first resolution, to include other varieties of animals besides neat cattle, which was lost.

The clerk received the names of members of the convention, numbering forty-three in all, of whom eleven were from Massachusetts, one from New York, one from Vermont, and the rest from Connecticut.

After this the committee reported officers of the convention who were elected, viz:—

President—JOHN T. NORTON, Farmington.

Secretary—MASON C. WELD, Hartford.

They reported, also, the following resolution with reference to Vice Presidents, which was passed:—

Resolved—That in order to facilitate business, the convention appoint five Vice Presidents, who shall respectively bring business in regard to their several classes of stock before the convention.

They nominated the following gentlemen, who were elected;—

Vice Presidents.

Paoli Lathrop, for Shorthorns.
Randolph Linsley, for Devons.
Daniel Buck, Jr., for Alderneys.
John Brooks, Jr., for Ayrshires.
Ambrose Bowen, for Herefords.

Mr. Dyer here presented a letter from the trustees of the Maine State Agricultural Society. This Society appointed delegates, who were unfortunately prevented attending.

WINTHROP, Maine, *April 2d*, 1859.

To the Gentlemen of the Cattle Breeders Convention in Hartford assembled;

GENTLEMAN:—In behalf of the Trustees of the Maine State Agricultural Society, I address you for the purpose of expressing to you their hearty approbation of the movement you have made to introduce more system in the breeding of pure blood cattle, and more certainty and reliance upon pedigrees of the same.

If purity of blood be of any value, it is certainly of the utmost importance that it should be preserved, and transmitted from generation to generation without alloy. It is also equally important that the certificates and vouchers of this purity should be authentic and undoubted.

All who have had any experience in the purchase of cattle, know, full well, how ready the crafty and unprincipled are to palm off grade cattle for thorough-bred; and those who have had any experience in the management of agricultural societies are aware with what rapidity full-bloods increase about cattle-show time, to the no small perplexity of awarding committees, and annoyances of the real breeders of pure-blooded cattle, who are not unfrequently pushed aside by unblushing pretenders.

We trust that the measures which you may adopt will be dictated by sound judgment and wisdom, and we wish you perfect success.

To aid you in accomplishing your purposes, we beg leave to assure you of our cordial and zealous co-operation.

With sentiments of respect and high regard, your obedient servant,

E. HOLMES,
Sec. Maine State Ag'l Society,
In behalf of the Trustees.

The same committee reported a constitution which was then acted upon by sections, and passed in the form given below, when the convention adjourned till 2, P. M. The various Vice Presi-

dents calling breeders of the different classes of stock to meet them for counsel in the mean time.

AFTERNOON SESSION.

The constitution received the signatures of members of the convention very generally, and, a nominating committee having reported, officers were elected as follows:—

President—JOHN T. NORTON, Farmington.

Vice Presidents.

Poali Lathrop, for Shorthorns.
Lemuel Hurlbut, for Devons.
John Brooks, Jr., for Ayrshires.
Thos. Motley, Jr., for Alderneys.
Ambrose Bowen, for Herefords.

Sec. and Treas.—HENRY A. DYER.

Mr. Jabez S. Allen, of East Windsor, reported on behalf of the Shorthorn committee, and also submitted the following resolutions in regard to full-blooded animals, which were passed:—

Resolved—That we deem no animal to be thorough bred that cannot be traced by record, in direct line on the side of both sire and dam, to animals in Great Britain of undoubted purity of blood.

Resolved—That the members of this Society forward to the Secretary the pedigrees of all thorough-bred neat cattle in their possession, and of any animals of pure blood which may be necessary to the completeness of the record, to be by him referred to a committee which shall be appointed by the Society, and when approved by them shall be recorded upon the books of the Society.

Resolved—That a committee of five be appointed on pedigrees:—S. W. Barttell, B. H. Andrews, Sanford Howard, R. Batlett, Samuel Thorne, were appointed this committee.

Mr. Linsley reported on Devons, Mr. Brooks on Ayrshires, and Mr. Bowen on Herefords.

A discussion was then had on Herefords, working oxen, and various other topics, which we must omit for want of space.

Mr. Brooks presented a statement of an experiment made with a view to test the improvement of Devons and Ayrshires on the same feed, which resulted in favor of the Devons. (The Ayrshires were 15-16 pure.)

Several cases were mentioned of gross frauds in the sale of pretended thorough-bred stock, arising both from ignorance and otherwise—and cases referred to in which impure blooded stock, or stock of false pedigree, had taken prizes at agricultural fairs.

EVENING SESSION.

The business of the evening session consisted in a free discussion of the following motions and resolutions, and their unanimous passage:—

Moved—That the committee on Pedigrees be notified of their appointment by the Secretary.

Moved—That circulars be issued detailing the objects and aim of the Society, and asking the co-operation of breeders, and that they forward their pedigrees.

Moved—That the committee on pedigrees be directed to present a scale of points for each of the several classes of thorough-bred neat stock.

Moved—That the next annual meeting of the Society be held at the City Hall, Springfield, Mass., at 10 o'clock A. M., on the day specified by the constitution, viz:—first Wednesday in March, 1860.

Moved—That the doings of the Society be forwarded to the several agricultural papers of the country for publication.

Resolved—That this association discountenance the practice of fattening breeding animals for the purpose of exhibition.

Resolved—That in the estimation of this association it is inexpedient for Agricultural Societies to offer premiums for *Grade* bulls.

Resolved—That as members of various Agricultural Societies, we will give the weight of our influence

to induce the recognisance of the principles adopted by this association by those societies, and call upon all breeders of thorough-bred stock to join us.

Resolved—That the interest of breeders and the credit and improvement of the various breeds, requires careful selection of the *best* males, and those only, for the purpose of propagation.

Resolved—That the co-operation of the several State Agricultural Societies be asked in furtherance of the objects of this association.

At a late hour the association adjourned *sine die*.

—:—

Constitution.

SEC. 1.—This Society shall be called "THE ASSOCIATION OF BREEDERS OF THOROUGH-BRED NEAT STOCK." Its object is to promote acquaintance among breeders of thorough-bred stock, to secure a knowledge of the best systems of breeding, to guard against frauds in pedigrees, and imposition in blood.

SEC. 2.—The Society shall consist of all breeders of thorough-bred neat stock, who shall sign the Constitution, and pay the sum of two dollars annually. Persons, becoming members, shall be considered such, and liable for their annual payment until they shall signify in writing to the Secretary their intention to withdraw. The payment of twenty-five dollars shall constitute the donor a member for life, and shall exempt him from the annual contribution.

SEC. 3.—The officers of this Society shall be a President, five Vice-Presidents, a Secretary, and Treasurer, to be chosen at the Annual Meeting of the Society. These officers shall constitute the Executive Committee of the Society, and shall hold their offices for the term of one year, or until others are chosen in their stead. The Executive Committee shall have charge of all publications, shall have power to fill any vacancies which may occur in the offices during the year, and shall have the general control of all matters pertaining to the interests of the Society.

SEC. 4.—The funds of the Society shall be in the custody of the Treasurer, who shall pay them out and invest them under direction of the President. He shall give bond to the satisfaction of the Executive Committee for the faithful performance of the duties of his office; said bond shall be renewed as often as the same person is elected to office. It shall be the duty of the Treasurer to keep a particular account of the receipts and expenditures of the Society. He shall exhibit to the Executive Committee, as often as required, the state of the treasury, and shall present to the Society at its annual meeting, a full statement of his accounts, audited by the President.

SEC. 5.—There shall be an annual meeting of the Society, on the first Wednesday of March, at such place as shall be designated at the previous annual meeting; at which all the officers shall be elected by ballot. Extra meetings may be convened by the Executive Committee, and at such meetings twenty members shall constitute a quorum.

SEC. 6.—This Constitution may be amended by a vote of two-thirds of the members attending any annual meeting.

John T. Norton, Farmington, Conn., (A.)[a]
Ambrose Bowen, Oak Grove, near Medina, N. Y., (†.)
Thomas Cowles, Farmington, Conn., (§.)
E. H. Hyde, Stafford, Ct., (‖ & [a].)
David Clark, Hartford, Ct., (‖.)
T. S. Gold, West Cornwall, Ct., (§.)
Silas Root, Westfield, Mass., (§.)
Norman Porter, Berlin, Ct., (§.)
Daniel Buck, Jr., Poquonnock, Ct., ([a].)
David Moseley, Westfield, Mass., (§.)
John Brooks, Jr., Princeton, Mass., (‡ & ‖.)
R. Linsley, West Meriden, Ct., (‖.)
Paoli Lathrop, South Hadley, Mass., (§.)
Phineas Stedman, Chicopee, Mass., (§.)
James A. Bill, Lyme, Conn., (‖.)
B. H. Stedman, Chicopee, Mass., (§.)
Daniel W. Bartlett, East Windsor, Ct., (§.)
Albert O. Cummins, Grass Hill, Milbury, Mass., (§.)
B. H. Andrews, Waterbury, Conn., (‖.)
Jabez S. Allen, East Windsor, Conn., (§.)
Samuel W. Bartlett & Son, East Windsor, Conn., (§.)
Jacob N. Blakeslee, Watertown, Conn., (‖.)
Timothy Mather, Hartford, Conn., (§.)
Milo J. Smith & Son, Northampton, Mass., (§.)
Chauncey Smith, Stafford Springs, Ct., (‖.)
Lemuel Hurlbut, Winchester Centre, Ct., (‖.)
H. M. Sessions, South Wilbraham, Mass., (‖.)
D. B. Merrick, North Wilbraham, Mass., (‖.)
H. & C. F. Smith, Colchester, Ct., (‖.)
Ethan C. Ely, Long Meadow, Mass., (§.)
Stanley Griswold, Torringford, Ct., (‖.)
W. R. Sanford, Orwell, Vt., (‖.)
F. W. Russel, Portland, Ct.

EXPLANATION.—[a], Alderneys; †, Herefords; §, Shorthorns; ‖, Devons; ‡, Ayreshires.

BENEFITS OF THOROUGH DRAINAGE.

Robert L. Pell Esq., one of the most intelligent and successful farmers among us, gives us the following, as a brief expression of his views on this subject. Very few have practiced thorough drainage so long as Mr.

Pell, or to so large an extent. His views therefore are entitled to special consideration, as those of one who investigates, and is therefore scientific and at the same time eminently practical.

"The following are the principal agricultural advantages of drainage.

1st. By removing that excess of moisture, which prevents the permeation of the soil by air, and obstructs the free assimilation of nourishing matter by the plants.

2d. By facilitating the absorption of manure by the soil, and so diminishing its loss by surface evaporation, and by being washed away by heavy rains.

3d. By preventing the lowering of the temperature and the chilling of vegetation, diminishing the effect of solar warmth, not on the surface merely, but at the depth occupied by the roots of plants.

4th. By removing obstructions to the free working of the land, arising from the surface being at certain times from excess of moisture too soft to be worked upon, and liable to be poached by cattle.

5th. By preventing injuries to cattle or other stock, corresponding to the effects produced on human beings by marsh miasma, chills, and colds, inducing a general low state of health and in extreme cases the rot.

6th. By diminishing the damp at the foundations of cattle sheds, and farm buildings, which causes their decay and dilapidation as well as discomfort and disease to the cattle. All these evils lower the productiveness and diminish the money value of lands, as well as the comfort of the farmer.

When there happens to be two outfalls into the same main drain, from the same description of land, the one from surface drained, and the other from under or thorough drained, the water from the thorough drained will seem perfectly clear and pellucid, while that from the surface drained will be thick and muddy from the solid particles contained in it. Draining is generally regarded as the means of freeing the land from springs, which are the cause of under-water.

Springs may be explained on the principle of Artesian wells. Rain falling on high lands runs over the surface to all lower levels. If in its progress it passes over clay or impervious rock, it of course cannot sink ; if it encounters sand or gravel, it sinks and flows until it reaches an impervious basin, whence it rises to the surface by pressure of the water entering at higher levels, and causes outbursts in great numbers in all undulating and hilly countries, and on clay lands usually from marshes.—When you find the main spring by boring or otherwise, you must ascertain its subterraneous bearings by means of leveling ; you can then cut it off effectually in a cheap manner ; if you do not do so, all your labor will be lost. I have sometimes cut within three feet beyond a spring, missed it, and found my drain of no service ; after great cost and numerous failures have struck upon the vein, bored a hole to the spring, and thus been successful. In other cases I have drained five feet without success, and have then gone down two feet further into a gravel bed and found water enough to turn a mill, and many of my drains are seven feet

deep, on land that no casual observer would suppose required draining at all.

BAD CATTLE SPECULATION.

Of the lcrge stock of choice cattle, purchased by Mr. Barret, of Henderson, Ky., in England, at a cost of more than $20,000, only one cow was alive on the arival of the ship at New York. One after another of the valuable animals sickened and died; among them was a bull which cost $5,000, and a cow for which $2,500 was paid.—*Scioto Gazette.*

MAKING FARM LIFE ATTRACTIVE.

The writer of the following, after suggesting various ways, in which the farmer, through the influences of the school, and the home circle, may excite and interest the minds of his children, in useful and interesting enquiries and investigations, with great truthfulness and force, adds:

But enough has been said to show that a wide field of pleasure and useful observation lies open before any farmer. How much would the habit we have advocated tend to liberalize his views, to give him a new and stronger interest in his chosen profession, and elevate it also in the minds of others! It would then be plainly seen that there is no end to the subjects of interesting and useful observation and thought suggested by the pursuits of agriculture. And what a happy influence would this habit of observation exert on the children educated on a farm so conducted! They would grow up thinking men and women, and they would honor and fondly love the calling of agriculture.

How foolish it is for farmers to complain of their children forsaking the homestead at the earliest opportunity while such parents do nothing to invest farming with some kind of attractions! Their children would be dolts, if they did'nt wish to get away from some farms that we know of. But let parents show them that agriculture is something besides drudgery; show them that it awakens thought, and they will not run away from it. They will not hasten to towns and cities to engage in trades and professions less honorable, more uncertain of yielding pecuniary advantage, and less healthful to the body and mind and morals.—*Dr. Cloud's Magazine.*

No, no; "they will hasten" to make themselves such beautiful and plenty-abounding homes as those of their parents. Flowers, fruits and plenty; pure air, purling streams and the bloom of health; little danger of being crushed by an onslaught of ill-gotton wealth and less of being overtaken by poverty; intelligence in your head, a heart uncurrupted, good taste and a nice economy displayed all arourd you; the blue heavens, the green earth, voluntaries from every tree top, all nature whispering, or sounding aloud, or echoing lessons of love and goodness, of purity and innocence—what in city life can equal these. Nothing. O farmers bring up your children to know more than you or we did, when we had passed the age of boys and became men—to know this at least, that the farmers' home, if well directed and made the most of, is the best home on earth.

HUNGARIAN GRASS:—ITS VALUE FOR HAY, ETC.

An Iowa farmer in the region where the Hungarian grass was first introduced furnishes the editor of the *Cincinnatus* the following account of it. As the seed can now be obtained at a reasonable price, not above two dol-

lars a bushel, we believe, it may be a matter of interest to our readers to know what a practical farmer, in the region of its first introduction, thinks of it. We may hope that the following is a candid testimony, as the seed is no longer, we believe, to be offered to farmers at fancy prices. The writer says;—

As just at this time the Hungarian hay—or grass—is attracting attention, and as it is somewhat new to a great number of our farmers, the undersigned has been solicited to give his experience in raising and using this new kind of grass, which he the more cheerfully does because of being well satisfied it will *pay*.

Its first introduction into the United States was, if I am correctly informed, in the year 1854. My acquaintance with it extends back to that time; and the first that I ever heard of it was from a gentleman living in Monroe country, Iowa, who received the seed from a Hungarian exile passing through our country on his way Westward. From the pint of seed he sowed, he raised two bushels of seed, and hay enough to test it as an article of feed. He gave it such high praise, our farmers thought he was misrepresenting in order to secure sale for the seed; but the next season all the seed was sown, and a fair crop raised. By this time, the farmers found that all that had been said in praise of it was true, and the seed from the second crop was all sold, ranging from two to twelve dollars per bushel. The following season, every farmer that could raise money enough to buy the seed, sowed it, and the yield was very large, averaging not less than four tons of dry hay to an acre; and the premium-crop of our county was eight tons and thirty-five pounds of dry hay, duly sworn to by the committee appointed by the Agricultural Society to investigate it; on which there was a premium awarded of twenty-five dollars. I am well acquainted with the parties and the facts, and know them to be true. Last Spring there was, for the first time after its introduction, a surplus of seed, which was sown in limited quantities in the States of Ohio, Indiana, Kentucky and Illinois, and perhaps some of the other States had a little sown; but the season being so wet, and the farmers not acquainted with its proper management, it was almost an entire failure. There were a few, however, in each of the States that raised perhaps three or four tons to an acre.

My own experience in raising this grass, commenced with the Summer of 1856. I sowed five acres some time in June, when the ground was very dry. The seed did not germinate till after we had a rain, some time in the first week of July, after which it came up and made a good crop—say three tons per acre—and that too with but little more rain, till it matured; cut the second week in September. A part of this hay was fed to my horses and cows, they refusing the best Timothy hay when they could get Hungarian hay. My crop in 1857 was much the same as the year previous, although nearly all around me was much better.

The time for sowing the seed varies with the season. It should never be sown till the ground is warm and in good condition; the ground not broken up till you wish to sow it. Then break up your ground deep; harrow and sow the seed broad-cast, or with seed-sower; then harrow over, and you are done with it till harvest-time. The time for sowing, in a common season, would be from the 10th to the 20th of June. Last season I saw a tolerably good crop raised, sown on the 6th of July, and it matured before frost. Cut, cure and stack it like Timothy hay. A good crop may be estimated at four tons to an acre, and about thirty bushels of seed. Sow on good, rich, dry soil, at the rate of sixteen to twenty pounds to the acre, and if the season is not wet, you will be amply rewarded for your trouble. It does not flourish well on poor, cold,

wet or clay soils, such as is usually sown to Timothy. If fed with the seed, no other grain is needed for stock not worked, and only about one-half the usual amount to stock that is worked. Stock keep in good condition on it; hair sleek and glossy; never becoming costive as with Timothy hay.

These are facts in my own experience—not hearsay—to which every farmer in our county would be willing to bear testimony. We all regard it superior to Timothy or oats, and the hay usually sells higher by about two dollars on the ton than Timothy.

S. E. L. Moore,
In the Cincinnatus.

Albia, Monroe Co., Iowa, }
March 12, 1859. }

A WORD ABOUT PLOWING.

We will not dignify what we are going to say on this subject by calling it the *Philosophy of plowing*, as we see some of our cotemporaries are doing, and with great propriety, as regards their more labored articles.

A few thoughts, the first that come to us, are all we propose to give, and these rather in the way of suggestion, than of positive advice.

1st. We do not believe in deep plowing—10, 13, 16 inches or more—except in connection with the very highest manuring and the most perfect cultivation. If it be said that all cultivation should be of the very highest character, because that pays the best, our reply is, that can not be yet.

Every farmer knows, that on the scale of cultivation, from the lowest to the highest, there is a point, which may be called the point of maximum profit, and that if you fall below that point, or go above it you do not attain the greatest possible profit.

There may be acres on which it would be wise to plow twenty inches deep and apply a load of manure to each rod. But certainly it would be absurd for a farmer to resolve that he would cultivate all his land in that style, or not at all. In the present state of things, land in redundance, labor scarse, a different course is to be pursued. To cultivate all our land in the highest manner is just as impossible as it would be to sell the produce if we could so cultivate it.

The man who cultivates at an expense of more than his crop will bring it above the maximum profit. He who cultivates so as to get less than fifty bushels of corn to the acre, and other crops in proportion, from land naturally good, is below that point. Now to ascertain where that point is, and to practice accordingly, is what every farmer wants, and it is here that true wisdom shows itself.

The depth of plowing should be in some proportion with the manure to be applied. Unless land is to receive a rich dressing, we doubt, after all that has been said, whether seven or eight inches is not better than more; and even then we think the manure should be applied to the furrows, that it may mingle with and meliorate the soil newly turned up, rather than be turned under to a great depth.

We go farther. It is doubtful after all that has been said, whether, if you have ever so much manure, it is well to *invert* the soil more than seven or eight inches. We certainly would loosen it to a greater depth, but this might better be done with the sub-soil plow, which brings up nothing, but simply opens the soil to let in the air. Indeed there is

doubt whether an inversion of the soil to any depth is advisable. Some have believed that if it were possible to shake up the soil, to disintegrate it thoroughly, and then let it fall back in the same order as before, it would be better than the ordinary mode of inverting the soil. Their idea is, that whatever weed seeds were on the surface, would sprout and expand their vitality at once and be out of the way the latter part of the season, and that the surface soil which has been long exposed to the meliorating influences of sun and air, is more genial to the young plants and therefore might better be retained at the top for their use.

But such a process is out of the question. We have no implements for it. Inverting the soil, bringing the bottom of the furrow slice to the top and bringing the old top soil at the bottom of the furrow, is the only operation we are able to perform. The question is to what depth shall this be done? We believe not more than six or eight inches at most, and even then we would apply the manure at the top and only harrow it in, but should wish to harrow deeply, so as to mix the manure pretty well throughout and also to mix the old top soil with that newly turned up.

2. The width of the furrow slice—shall it be eight inches, or twelve, or sixteen, or, as perhaps some would say twenty? First consider that the draft increases with the width. It is by no means true that the labor is halved when you double the width of the furrow. Half as many rounds it is admitted, will finish a land, with twelve inch furrow, as with a six But the rounds will not be made in half the time nor with half the strength of the team. In the second place, consider the effect on the soil;—a six inch furrow breaks it up finely; one two or three times as wide is apt to fall over and lie in unbroken masses, with few openings to permit a free circulation of air. By plowing very wide furrows, we believe more is lost from the best effect of plowing, than is gained in time and labor.

3. How should the furrows be laid? We suppose in light sandy soils they should be laid as flat as possible; but that in heavy soils they should be thrown into angles of forty-five degrees, while in medium soils a medium course should be followed.—In England plowing is a trade. The plowman seldom does anything else, and he does this with wonderful precision—just right, provided his boss gives the right order. In this country, the work ought to be done still better, because the man who holds the plow is more intelligent, obeys his own orders, and can vary the style and manner as a sound judgment dictates, in different fields, and in different parts of the same field.

Forests.—The *Maine Temperance Journal* says:—"Remember they are yearly growing more valuable. Preserve the small growth, and transplant a few locusts, chestnuts, etc., upon land that is now useless."

Iron.—The entire production of iron in the United States in 1857 was 1,000,000 tons, and the consumption 1,386,000 tons. What a pity that the balance, 386,000 tons, should not be made from our own ore, with our own coal and by our own labor.

PROGRESS OF AGRICULTURE.

Mr. Editor:—I rejoice in the progress of Agriculture and in the success of so many periodicals devoted to its cause. It is certainly the great source of our national wealth and resources—because every step in advance of the past, will give increased prosperity to our country. Much has been accomplished, but still much more remains to be done, and the enterprise and spirit of the age will develop new sources of agricultural improvement. We need agricultural works made so plain and easy, that plain, hard working men, with but little education, can understand them, such are the practical farmers, and can test more effectually the different systems of farming, than others; and, when their energies are aroused, they will be as likely to make and suggest improvements as any other class of our population. It is certainly important that this valuable class of our community, become thoroughly acquainted with the great principles of agricultural science; that both principles and practice may be united; and that we may have the advantage of the practical farmer's experience and practice to develop our agricultural resources. Agricultural tracts might be prepared and circulated, that would do great good in this field of labor.—*Southern Rural Gent.* J.

☞ There are four million scholars and one hundred and fifty thousand teachers in the public schools of this country. There is one scholar for every five free persons. In Great Britain there is one scholar to every eight persons; in France one to every ten persons. The policy of all despotisms is not to let the masses know too much.

HOW BILL TOO-FAST FARMED.

We said in a former number, that this same Bill ran a brilliant course the first year and burst up the second.

His first step was an error;—he bought a twenty thousand dollar farm, when he had only capital enough to swing a fifty acre farm, worth twenty-five hundred or three thousand dollars.

His second step was an error;—he cultivated that farm, as if it was of no sort of consequence how much he expended, or how little he got back the first year, provided he improved his land for future use; whereas a farmer, with but little capital, should be reasonably cautious—not one of the "nothing-venture nothing-have" men, over-careful, cowardly—but *reasonably* cautious of his expenditures, and on the alert for quick returns. Our Bill did not seem to think but that he could wait very patiently for the returns, provided he laid out enough to make them sure, and perhaps thought his creditors would wait as patiently as he could.

His third step was an error;—he employed altogether too many teams and twice too many men. Ten farmers err by employing too little for every one that employs too much. But Bill had a great contempt for old fogyism. He wanted to show mankind what he could do, in a hurry. Ten laborers, eight yoke of cattle and three or four valuable horses were more than he could employ profitably, and in such a way as to give him returns sufficiently speedy to save him from going over the dam, and so over he went. His creditors saw that he was not conducting the farm in such a way as would enable him to pay the interest now and the principal by and by, and they chose to make a short job of it, and get something quickly,

rather than wait till they would be likely to get nothing. Well, that ended the chapter. Bill Too Fast's farming was done for.

And now our chapter, which we intended for a short one, might perhaps as well end also; for every one in the least conversant with farming, will see from what we have said just about how Bill Too Fast managed, and why he came out at the little end so soon. But we wish to touch upon a few particulars of his doing and see if any thing is to be learned from the example.

One of Bill's *mistakes* was that he gave his obligations to pay at too short times. If a merchant buys at ninety days and sells at sixty, he may possibly make his receipts meet his notes. To borrow for short times and sell on shorter credits may answer his purpose; but it is folly for the farmer to fill the world with his notes payable in sixty, ninety and one hundred and twenty days, especially if his object is almost as much to improve his farm and increase its value, as to get a money renumeration for his labor.

Bill Too Fast sported a capital of about five thousand dollars at the outset, and was minus the whole and about as much more which his creditors lost, at the end of two years. Now our idea is that instead of going it large, he should have bought a farm with but $2,500, if he was to pay down or within a short time, and kept half his $5,000 to stock and work it with; or if he wanted to do a larger business, and so had taken a farm worth $5,000, he should not have paid down more than $2,000, nor agreed to pay more for a long time, reserving $3,000 to buy stock, implements and labor with, and to live on, till a clear profit should have resulted from his business.

For the balance on his farm, he should have arranged for paying it at very slow rates, but with the privilege of paying faster, and so stopping the interest, if he should find that the best use he could make of his money. There is no business in which the conductor should be more wary of putting himself into a position to be dogged by creditors than farming, The merchant can borrow of bank No. 1, to pay the importer; of bank No. 2, to pay bank No. 1, and so round the circle; but the farmer cannot well do this. He may be in debt. To say he may not, would be as much as to say that none but rich men shall farm. But let him have his liabilities concentrated at one or a few points and let his arrangements be such that when the creditor comes he can either say, "Sir, I have not the money, nor am I under obligation to pay now, if I had it;" or, "I have the money, but I can do better with it;" or, "Here's the money, and I am happy to hand it over and stop that interest."

Nobody can so illy afford to be without money, or to be harrassed by creditors as the farmer We would say, be in debt if you must, but put yourself in such a shape as to have money at command, and to be able to stave your creditors off, till it is for your interest to pay them. Arrange with the capitalist, so that, by paying the interest, you can pay the principal when you please or leave it for your children to pay after you, if it should be for the interest of the family so to

do. Money can be obtained on good farms, conducted by sober, honest farmers, at more favorable rates than in any other business.

Another *mistake* of this very fast man was that he plowed fifteen or sixteen inches deep, where the fields had before been plowed but seven or eight. This might have been done by a man with an abundant capital. It would not have been a good policy. He might better have deepened the soil by degrees, an inch or two a year. But for one with a deficient working capital, whose object should have been to seek immediate returns, in order to keep his head above water, it was hardly less than insane. As we have said elsewhere, we doubt exceedingly the policy of inverting the soil with the common plow much if any deeper than has been usual.—Whatever is done with the soil at a greater depth should be done with the sub-soil plow. To invert the soil fifteen inches, is monstrously expensive, and does no sort of good, unless for extra gardening or fruit culture, where very large quantities of manure are to be employed. Bill Too-Fast plowed with three yoke of oxen, turned up soil that had not seen the light since Noah's flood, put on a dressing of manure that with ordinary culture would have ensured a large crop, and got about as much corn as would have paid the cost of growing, if he could have sold it at five dollars a bushel.

Another *mistake* was that he plowed the manure in too deep. The soil was a rather compact loam, the clay predominating over the sand. Bury manure twelve or fifteen inches deep in such a soil, and it will not come back in your day; and whether it will in your childrens' is more than we know. We incline to the opinion that down in so cold a region, it is gradually decomposed, and then rearranged into combinations hurtful rather than beneficial to crops. Manure should be where it will feel the influences of the sun, or it will not produce its best effort very soon if ever.

We would name other mistakes, but it is not necessary; and we close with expressing the belief, that while it is possible to be a little too fast in farming, there is ten times more danger of erring on the other side.

THE ONION FLY; or, MAGGOT.

Since the insertion of the enquiry from Danvers, Mass. on this subject, in an earlier part of this number, we have received from Mr. Orange Judd, of the *American Agriculturist*, a pamphlet of thirty-one pages, embracing essays on the cultivation of the onion, by seventeen practical onion growers, which we judge must be a valuable directory to all who wish to engage in the cultivation of this crop. We copy from it the following on the onion fly.

The female fly deposits its eggs on the base of the stem near the surface of the ground, which in a few days become hatched, the larvæ immediately penetrating between the leaves to the bulb, upon which it preys unseen; but the effects soon become visible, for the leaves turn yellow, fall prostrate on the ground, and quickly wither away.

In the course of about two weeks they arrive at maturity, and change to the pupa state, and in fifteen or twenty days more emerge the perfect fly, fully prepared to accomplish their

depredations by depositing their eggs upon the more healthy plants. As many as from one to five of the larvæ were frequently to be met with on a single plant.

The perfect insect is about half the size of the common house-fly, with a few thinly scattered hairs covering the surface of the body. It is of an ash-gray color, the males being distinguished by a series of dark stripes upon the back. The head is marked with a brownish spot upon its apex. The wings are exceedingly transparent, exhibiting beautiful iridescent reflections from their surfaces, the shoulders of which are of an ochery-brown color, and the veins of brownish yellow.

This fly may not unfrequently be met with in the spring of the year, basking in the sunshine about the windows of the neighboring dwellings. And from the circumstance of finding their larvæ in the greatest profusion, committing their depredations in the middle and latter parts of August, we are inclined to believe that they pass through several generations in a season, and that they probably make use of the seed of the plant, on which to deposit the egg for the larvæ of the ensuing Spring.

If this be so, steeping the seeds in brine, before sowing, we should suppose would be the proper remedy; if otherwise, the process will not materially affect their germination. They appear to show a distinct predilection for the white onion, in preference to that of any other color.

This insect is exceedingly difficult to destroy. Strewing the earth with ashes has proved of little avail; powdered charcoal answers a much better purpose, and is generally in use in this section of the country, but it should only be thrown over about two-thirds of the bed, so as to leave a portion of the plants for them to resort to on being brought to the perfect state, and driven from their original resting place. When they have been converted to the larvæ state and commenced their depredations, these plants should be pulled up and consumed by fire.

It has been recommended to prepare the beds as early in the Spring as convenient, and suffer them to remain eight or ten days for the noxious plants to vegetate, then to cover them with straw to the depth of ten inches, and turn them over; after which, plant the seeds for the ensuing crop immediately.

This process, it is stated, has proved perfectly successful in driving away the insects and insuring good crops, and in addition to this, has furnished a capital top-dressing to the soil. Onion-beds prepared from the hearths upon which charcoal has been burned, have likewise been mentioned as producing the perfect vegetable, entirely free from the attack of the fly.

Should the charcoal method here mentioned be universally adopted, we have little doubt but that this insect depredator will in a short time become greatly reduced in number if not entirely destroyed, and afford a much better chance for a more healthful crop of the onion plants hereafter.

J. E.

GIVE PREMIUMS TO BRANCHES OF AGRICULTURE THAT NEED STIMULATING.

We have no great sympathy with *grumbling*. It is a great deal easier to find fault with others, than to do right ourselves, but not half as useful. The *Louisville* (Ky) *Courier* has a long article on the arrangement of premiums at our fairs under the head "Is it judicious?" a little too much on the complaining order perhaps, but withal so pregnant with truth and written so spiritedly, that we wish we could find space for the whole.—The following is a part.

The Kentucky State Agricultural Society will pay $1,000 in premiums

on tobacco, in this city next month, and at a meeting in Frankfort, last week the Board of Directors determined to offer the same amount for premiums in 1860.

The Indiana Board of Agriculture, in their premium list recently published, offer $250 on a horse, in sweepstake ring; $250 on a bull in same ring, and $100 on a jack.

The Kentucky State Society, in the premium list drafted for their fourth annual fair, to be held at Lexington the second week in September, offer $50 for the best aged horse, $50 for the best aged mare, $50 for the best aged bull, and $50 for the best aged cow. The same sum is also offered for the best harness horse, the best harness mare, the best saddle horse, the best saddle mare, the best jack, and the best jennet. For horses, mares, bulls, cows, jacks and jennets, in sweestake rings, $50 is likewise offered.

There has for some years been a doubt in our mind, which is constantly strengthening, whether such large premiums, on a few prominent articles, are so well calculated to promote the objects professedly held in view in holding fairs, as a more equal distribution of the total amounts offered, among a more numerous list of articles in the several classes presented.

We well understand why, for a few years, the Directory of the Kentucky *State* Society may with propriety, offer a premium of $100 on a hogshead of tobacco, while it offers only half that sum on a short-horn bull or cow; because, while both are great interests in Kentucky, affording profitable employment to a large share of the labor and the capital of the State, one confessedly "rides upon the high tide of successful experiment," while the other unquestionably needs stimulating. It may safely be said that in no part of the United States, if any part of the world, are better cattle bred than in the State of Kentucky; while it is a notorious fact that a large portion of the tobacco grown in this State comes to market, through defective culture and handling, in such a condition as materially to lessen its market value, and greatly prejudice it among many buyers. It is, hence, an evidence of wisdom, on the part of the Directory, to offer, *for a few years*, such premiums as will stimulate planters to a more thorough culture, and more systematic and careful handling. But why the same Directory should offer $50 in a premium upon a bull, and only $10 upon a bushel of wheat, and the pitiful sum of $2 for a display of apples, peaches, pears, or grapes, is one of the things we can't see the reason of. Discrimination, if any, should be in favor of the weak. Horticulture is a struggling employment in Kentucky, and those who engage in it are subject to continual discouragements. Yet the State Agricultural Society says to its votaries, who are so often its victims, Take your baskets upon your arms, shoulder your ladders, and go out among your fruit trees—and whichever of you, after selecting his choicest and conveying them a mile or two, or a hundred miles, can make the best display of any variety of fruit which your orchards produce, shall be entitled to the magnificent sum of *two dollars*, "in silver plate coin or books," at the option of the Directors, upon application at the captain's office! or for the best display of apples, peaches, pears, or grapes, *in variety*, whichsoever of you makes it, shall be entitled to five or ten dollars. So collect together all the baskets in the neighborhood, marshal your household forces, perch on step-ladders and climb trees, prepared for a day's work. When this is finished, betake yourselves to your back porches, rub up and wrap in tissue paper. And then, on the second day of the fair, attend in person, spread out what you have got, put its best foot foremost, and watch it against unruly fingers till the judge comes along. Stand firm—don't grow weary—for *one* of you will be certain

to get five dollars worth of silver spoons or a ten dollar cup!

Kentucky wheat ranks deservedly high in the markets of the Atlantic. Throughout the past year its price in New York has been equal to the highest. Our seasons are long, and of the average excellence for this crop. Some of our strong beech lands contain a soil as well adapted to wheat culture as the soil of any part of the country. Yet our average acreable product is only ten or twelve bushels. And with a knowledge of all these facts, and a perfect acquaintance with the *status* of the two interests, the Kentucky *State* Agricultural Society offers a premium of $50 for a bull, and ten dollars for a bushel of wheat! Where is the wisdom of this discrimination? We cannot see it.

The cattle interest is a great interest, and ought to be fostered. But like bulls, and cows, and heifers that represent it at our annual fairs, it now stands proudly upon its legs, and has a regal look. It can take the crowd at any moment, and "bring down the house." But what of the *field* agriculture of Kentucky? In the main, it is notoriously at a low ebb. It needs continual nursing; it requires precept and example every year and every day; it wants stimulating at every step, in every possible way. Yet the Directory of the State Society, (and in this they have but followed usage, only "piling the agony up" a little higher,) while offering premiums of $50 for a bull, a cow, a horse, a mare, a jack, a jennet, offer $10 for the best bushel of wheat and the best sample of hemp, $5 for the best display of potatoes, (in variety,) and the best five pounds of butter or cheese, and $2 for the best sample of corn, rye, barley, oats, buckwheat, and grass seed! Where is the premium for the best ten or twenty *acres* of corn?—the best ten or twenty of wheat?—the best five or ten of other small grain?—the best field of hemp? Where is the premium for the best managed farm? or the best conducted dairy? Where is the premium for the best located, best laid out, and best cultivated orchard? Where that for the best vegetable garden, or best flower garden?

We have copied enought to show the "upshot" and "drift" of the *Courier's* article;—it is that the premiums should be given in the direction where stimulus is most needed. This is right. Its long and, we think, able article ends thus;

We question very much whether $5,000, $10,000, or $20,000, divided chiefly into a few large premiums, no matter whether live stock, field crops, farm management, or what not, will prove of one-quarter the advantages to the agricultural interest that the same amount of money would produce if judiciously divided among a large number of animals and articles such as are generally present at exhibitions of the kind, and in rewards for manufacturing and mechanical skill, farm industry, and enlightenment, dairy management, and pomological and floral judgment, enterprise, observation, and taste.

The present tendency of things is the "big lick," and "high sounding" direction, we know—but, *Is it judicious?*

IMPROVING THE HOMESTEAD.

Friend Nash.—We hold it to be a part of the farmer's mission to beautify and improve the earth, and in this way give it more of the semblance of that beautiful spot inhabited by man in the days of his primitive innocence.

Especially should it be the object of the farmer to make his home and all its surroundings beautiful and attractive. Let him do this, and there will be less complaint that his sons dislike his profession and hurry to the city to bleach in its pollutions

and risk its uncertain gains for an existence. Let farmer's homes and farmer's education be what it should, and the rush will be to get into the farmer's profession instead of running out of it.

Among the cheapest and simplest ways of improving the homestead there is none productive of more beauty and benefit than planting out trees. What beautiful objects they are for the eye to rest upon, rising in unstudied symmetry? What comfort they bring in their refreshing breezes to alloy the heat of summer and the protective influence in breaking the merciless storms and rough winds of winter! And how much more beautiful they are, how much more refreshing their shadows if our own hands have planted them! How we love to watch their growth until we see the delicate sapling transformed into a beautiful tree.

You reccollect the beautiful avenue, planted by the wayside in Lenox, by the venerable Judge Walker; with what pleasure he watched their growth and what a benefit he conferred on posterity when he gave them a place. You are at home in the shady streets of Pittsfield, whose trees are among its loveliest features. What comfort and beauty it would bring if all our villages were thus embowered, and if all our streets were transformed into such beautiftl avenues; and how easily it may be done.

May day is almost as much of a holiday with young Americans as the old-fashioned election day was with our fathers. Now the proposition we offer is, that this holiday for once be occupied in setting out trees. Suppose a member in each family should set as many trees as there are persons in the family, all over the country, what a host would be set out. It would not be much labor to set three, six or ten trees. The aggregate would be great, the benefit invaluable. Stir the people up to do it.

Yours truly,

RICHMOND, Mass., *April* 12, 1859. } W. BACON.

Our May number will hardly reach our readers' homes in time for the above recommendation to take effect this year. But let another May day be kept for this special purpose. A year is too long to put off. More of the beauty of a country village or a single house in the country, depends upon the trees than upon the building; and costly buildings are not at every one's command, whereas all can afford beautiful trees.

THE BONES ABOUT THE PREMISES.

Now is the time to gather them up from the fence corners and other places, where they are neither ornamental nor health giving. Put them into the soil, if you have not already. The best course is to take them to a bone mill and get them ground, if there is a bone mill near you. But probably there is not, as there is not yet one bone mill to where there should be a dozen. If ground finely and mixed with several times their weight of muck or loam, and worked into the soil, in and around corn hills, at planting time, no manure is better. We have often tried it. It will not produce the tallest growth, but will give the largest and best filled ears of anything we have ever tried.

But if there is no bone mill near

you, as is the fact we have no doubt with nine-tenths of our readers, break the bones, as best you can, and apply them to the soil. They are good for every kind of crop. Their effect, if only broken, will be the same in the end, but will be slower than if ground finely, and for some purposes will do all the better for this, as in the case of fruit trees, to all of which bones should be applied at the time of transplanting, and may better be coarse than fine, for the reason that here a lasting rather than an immediate effect is sought.

A BRACKETED COTTAGE.

We admire the symmetry of the above. The cottage itself is beautiful. The trees about it are more beautiful. The beauty of both is heightened by their juxta-position. The cost of a country home, that will strike every eye pleasantly, need not be great above one of equal size and conveniences, that will offend all good taste. This, we understand, can be erected of durable materials, and the work well done, for something within $1,400.

It gives a veranda in front 32 feet by 8; one in the rear narrower, but of nearly the same length; a hall, 20 by 7, including stairway; a parlor 20 by 14; a kitchen, 20 by 14; a nursery, 12 by 11; a bed-room, 12 by 11; a back kitchen of about the same dimensions, with plenty of cupboards, &c., &c., besides some three or four bed-rooms above.

Do not forget that a few well chosen and properly located shade trees—not a thicket to cut off the view, nor too near the house to cause its decay, but a few and at a reasonable distance—are the glory and honor and beauty of a country home, and that too in the very cheapest form in which you can buy these qualities.

Buy them we say; and do not wait, because you may not have money to fool away; but buy them now, *this Spring*, with the price of a little extra labor; and our word for it, your mother, wife, sister, daughter, any or all, as the case may be, will praise you.

GARDEN WORK FOR MAY.

Now is the time to transplant from your hot-beds all kinds of plants that have been grown there. Always take a rainy day for the operation; or, if you do not like to work in the rain, do it just before or soon after the rain is over.

To prevent the cut worm from destroying your plants roll a leaf or piece of paper around the stem extending from the leaves down to the roots. The cut worm works only near the surface, therefore the paper or whatever covering you use should cover the stem below the surface at least one inch, and as much above.

In transplanting cabbage, lettuce, tomatoes &c., &c., it is well to pull off the lower leaves (especially if the plants are large) before planting. It will be found to operate equally as well as it does in shortening the branches of trees when removed. If the weather is dry and your plants are getting large and need planting, you can plant them out by first dipping their roots in mud just thick enough to adhere to the roots;—of a sufficient thickness to exclude the air while they are being planted out.

This month is the time to plant your melons, early cucumbers, celery, parsnips, salsify, beets &c.

Don't forget the Hubbard squash among other good things.

If your strawberry beds are made this Spring they will bear a full crop next season, besides you can plant the vines now with less risk of their dying than at any other time of the year.

Raspberry bushes should be tied up to good strong stakes or trellis and all the dead wood cut away. Shorten the side branches, and where the canes are strong the tops may be taken off.

Graft fruit trees this month. If your graft were cut last month and have not started their leaves you can graft your trees especially the apple and pear after their buds have become much swollen.

Grape vines should be grafted after their leaves start and the sap has become so much thickened that they will not bleed. When the young shoots are about one inch long will be about the right time. Graft below the ground, then cover up the graft leaving only the upper bud above.

Trees should all be planted now, but don't neglect the planting of a few if it is getting *rather* late, which excuse has prevented many from ever planting an orchard. "I will plant next Fall," is the excuse in the Spring, "I will plant next Spring, is the excuse in the Fall; when Spring comes, "I have been so hurried with farm work that I fear it is too late for this season;" so we put it off from year to year, thinking that we have a reasonable excuse when it is nothing more or less than sheer negligence.

If the leaves are showing themselves no matter, you can move the tree without injuring it, if you do not let the roots be too long exposed to air. Keep them moist and shaded and you can move trees until the leaves are half grown with safety.

Many a good intention has been ruined by procrastination.

BROOKLYN HORTICULTURAL SOCIETY;

Close of the Spring Exhibition.

The Spring exhibition of the Brooklyn Horticultural Society closed last night (April 15.) The Society has never made a better display than the last, and on no occasion has it elicited more marked interest on the part of our citizens. If its future management shall be as admirable as the past, we have no doubt it will take a position as the most effective association of the kind in the country. The plants of Wm. Kelly, Esq., of Rhinebeck, attracted much attention, and his accomplished gardener, Mr. Wm. Bennett, contributed largely to the success of the exhibition. Mr. Kelly's contributions were extensive and varied, including some specimens of rare beauty. C. Vanvoorst, Esq., of Jersey City, made an admirable display, including plants of great value and rarity. George Hamlyn, gardener to Wm. C. Langley, Esq., and J. A. Patrick, Esq., of Brooklyn, Chas. H. Rogers, Esq., of Ravenswood, and J. E. Rauch of Third avenue and Ninth street, presented beautiful collections. Jas. Weir, of Bay Ridge, deserves notice for handsome baskets and boquets of flowers. Walter Parks, of Brooklyn, exhibited a beautiful basket of flowers with an elegant shell sunk in the top containing diminutive gold fish. It was the subject of much admiration.

BEST FRUITS.

T. S. Gold, of West Cornwall, Conn., an accomplished fruit grower, gives the following opinion with regard to varieties of apples.

"Within the last twenty years the orchards in this part of the State have failed very rapidly, many old trees dying or ceasing to bear good fruit. Decay dates from the ice storm of 1855–6. During ten years I have planted five hundred apple trees, most of which are now in a tolerably thrifty condition, and some are beginning to bear. The insect pests are very numerous, embracing the common caterpillar (Clisiocampa Americana) which makes nests in early summer, a smaller one which makes nests in August, a large, coarse-haired worm which lives in families but does not make a web (Eumetokoma Ministra,) a little worm which eats the tender shoots in summer, and the scale insect or bark louse; but these are harmless compared with the borer (Sapordo(?) bivitata.) By washing the trunk repeatedly with a compound of whale oil soap, sulphur, and fresh manure of cattle, the trees are partially protected, but after all, the chief dependence rests in cutting them out with a knife.

For an orchard of one hundred trees, of only six varieties, the following would be a good selection:

Porter,	10	Baldwin,	20
Coggswell's Pear-main,	10	Greening,	20
Golden Sweet,	20	Roxbury Russet,	20

For twelve varieties.

Sweet Bough,	5	Golden Sweet,	20
Early Harvest,	5	R. I. Greening,	10
Fameuse,	5	Baldwin,	10
Porter,	5	Roxbury Russet,	10
Coggswell's Pear main,	5	Peck's Pleasant,	5
Hurlburt,	10	Excel,	10

Divided among twenty varieties.

Early Bough,	2	Gilliflower,	3
Early Harvest,	2	Spitzenberg,	3
Early Strawberry,	1	Peck's Pleasant,	3
Red Astrachan,	1	Excel,	5
Fameuse,	3	Coggswell's Pear-main,	5
Porter,	3	Hurlburt,	10
Seek no Further,	2	Greening,	10
Fall Pippin,	2	Baldwin,	10
Winter Belle Bleur,	5	Roxbury Russet,	10
Swaar,	3	Golden Sweet,	20

THE PEACH BORER.

A friend residing in North Carolina gives the following mode of destroying the peach borer.

"Take the pickle in which meat has been salted, or dissolve as much salt as will dissolve in water. Make

a small cavity in the earth at the root of the tree—one that holds a quart for a small tree—pour the pickle on the tree about six inches above the ground, so that it may run down all around the tree, and stand a little, so as to soak the bark of the tree and kill the worms. Urine answers the same purpose well. This should be done in the Spring as soon as the frost is out of the ground, and again in July."

Mr. N. A. Bacon of New Haven, in the Hartford *Homestead*, gives his experience with the borer as follows :—

"My practice has been to lay bare the trunk of the tree some three or four inches below the surface of the ground, then remove with a knife any grubs, (white with a brown head,) if any there be in the tree—then take a strip of woolen cloth (old cast off pieces of carpeting I have used,) about six inches wide, wind it twice around the tree so as to cover it about three inches above and the same distance below the surface of the ground, and tie it to its place with woolen yarn, or other elastic string.

The eggs which produce the worm are deposited by the parent at the surface of the earth near the tree, and, as the worm when hatched, is unable to penetrate the woolen cloth so as to reach its means of subsistance, it perishes—as I suppose—at any rate none of my peach trees, protected as above stated have been injured by the borer."

A NEW MODE OF GRAFTING.

An eccentric friend of mine claims to have discovered a new mode of grafting fruit, which he says he has thoroughly and successfully tested, and with the best results. Instead of cutting off a limb and making a cleft, he took any desired limb that was large enough to admit of it, and made a *gash* into it with his knife, downwards and diagonally to the grain of the wood, at about the angle that a limb would naturally grow, not deep enough to weaken the limb too much. The limb, before the scion is inserted, looks as though it had received a light blow with a sharp hatchet, at about the angle that a man would naturally strike with a hatchet. The gash must be *smooth*, and the bark *smoothly cut*—not *mangled*. He then shaved off the lower end of the scion, as in cleft-grafting, and inserted in this gash up to the bark of the scion, so that when done, the bark of the scion and the bark of the grafted limb *met* evenly on both sides of the scion. All that remained to do, was to put wax in the angles made by the scion with the limb, and on each side of the scion into the gash. To his great surprise the majority of his scions so grafted lived, and are thrifty, although hastily and carelessly set. This year he has improved on this method, by using a *sharp* three-eighth, or one-quarter inch (or even in some cases one-half inch) "firmer chisel" which he drives into the limb, or even into the trunk of a tree when not *too old* and large, instead of using a knife and making a gash. He has grafted a great deal in this way, and he says with unusual success. In this way he has grafted into the trunks of young thrifty trees that were four and even six inches in diameter, and he says more of his grafts live than any that he ever grafted in any other way.—*Zion's Herald.*

HOW THE BEAN CLIMBS THE POLE.

Prof. Brewer of Washington College, Penn., communicated to the *American Jour. of Science and Arts* the result of some experiments made by him on climbing vines—the hop, the Lima bean, and the morning glory. He finds that they will climb around a transparent glass pipe just as well as anything else, and that they are most ardent in their embraces when the pole is warmer than the surrounding air. During the day, the vine is attracted toward the light, but at

night, and especially on cool nights, it turns to the pole. He learned, also, that the color of the pole makes no difference; the carressing instinct of the vine has no prejudice against any shade. The element of constancy is very largely developed, the vine, after it has reached its pole, showing a much stronger tendency to wind around it than it did before to reach it.

OLD KING COAL.

BY CHARLES MACKAY.

Old King Coal was a merry old soul;
"I'll move the world," quoth he;
"My country's high, and rich and great,
But greater she shall be;"
And he called for the pick, and he called for the spade,
And he called for his miners bold;
"And its dig," he said, "in the deep, deep earth,
You'll find my treasures better worth
Than mines of Indian gold!"

Old King Coal was a merry old soul,
Yet not content was he;
And he said, "I've found what I've desired,
Though 'tis but one of three."
And he called for water, and he called for fire,
For smiths and workmen true;
"Come, build me engines great and strong,
We'll have," quoth he, "a change ere long:
We'll try what steam can do."

Old King Coal was a merry old soul;
"'Tis fairly done," quoth he,
When he saw the myriad wheels at work
O'er all the land and sea.
They spared the bones and strength of men,
They hammered, wove and spun;
There was nought too great, too mean or small,
The giant STEAM had power for all;
His task was never done.

Old King Coal was a merry old soul,
Quoth he, "We travel slow;
I should like to roam the wide world round,
As fast as the wild winds blow."
And he called for his skilful engineers,
And soon through hills and valleys,
O'er rivers wide, through tunnels vast,
The flying trains like lightning passed,
On the ribs of the mighty rails.

Old King Coal was a merry old soul,
A merry old soul is he
May he never fail in the land we love,
Who has made us great and free.
While his miners mine and his engines work
Through all our happy land,
We shall flourish fair in the morning light,
And our name and our fame, and our might and right,
In front of the world shall stand.

SULPHATE AND SULPHITE OF LIME,

Two very Different Things.

We regret that in publishing Prof. Horsford's directions for preserving cider, in our Jan. number an error of the press was overlooked, by which that gentleman was made to say sulphate instead of sulphite of lime. In replying to a correspondent hastily in our last, we were led into an error, which we see no better way of correcting than to republish Prof. Horsford's recipe, as we have received it from a friend of his. Of its value we have no doubt. It would hardly be much of a recommendation, to say that cider, so preserved "is better than what is called champaigne wine." The truth is that it is better than *champaigne wine* omitting the so-called. But if any of our readers should make the trial, let them apply sulph*ite*, not sulph*ate* of lime, in the proportion specified below.

"As this is the season of the year [this was published last Autumn] when farmers and others are manufacturing cider, I think you can in no way do a more acceptable service to a numerous class of your readers than by publishing the following method of arresting the vinous and acetic fermentations in this beverage at pleasure, and preserving it permanently sweet and unchanged:

"Put the new cider into clean casks or barrels, and allow it to ferment from one to three weeks, according as the weather is cool or warm.—When it has attained to lively fermentation, add to each gallon three-fourths of a pound of white sugar, and

let the whole ferment again until it possesses nearly the brisk pleasant taste which it is desirable should be permanent. Pour out a quart of the cider and mix with it one quarter of an ounce of sulphite of lime for every gallon the cask contains. Stir until it is intimately mixed, and pour the emulsion into the liquid. Agitate the contents of the cask thoroughly for a few moments, then let it rest, that the cider may settle. Fermentation will be arrested at once, and will not be resumed. It may be bottled in the course of a few weeks, or it may be allowed to remain in the cask and used on draft. If bottled it will become sparkling cider—better than what is called champaigne wine.

"Prof. Horsford of Cambridge was the first to use the sulphite of lime for this purpose, and to him is due the credit of first calling attention to its usefulness. It is in no respect deleterious, as the sulphate, into which the sulphite is changed by the liberation of sulphurous acid, is entirely insoluble, and remains at the bottom of the vessel.

"The writer has cider prepared in this way two years since, which has remained unchanged, and is now a beverage of unsurpassed excellence. The *sulphite* of lime, not the sulph*ate*, must be used."

RECIPES.

A CORRESPONDENT in the far West sends us the following, which we publish rather from his testimony for their excellence, than from any certain knowledge of our own, whether they are new, and if so, whether they are good.

Loaf of Tea Cake.—Take 2 cups of sour milk, ½ cup of fine sugar, 2 teaspoonsful of butter, 1 teaspoonful of soda; add a little nutmeg, after which add 3½ cups of flour.

Gingerbread Cakes.—Take 6 cups of flour, 1½ cups of sugar, ½ oz. of ginger, ½ cup of butter, 3 eggs, ½ teaspoonful of soda; mix well together, and you will have gingerbread cakes of good quality.

Sponge Cake.—Beat well together 3 eggs mixed with sour milk, 4 cupsfulls flour, 2 pounds butter, ½ cupfull white coffee sugar; add also ½ nutmeg or the grated rind and juice of 1 lemon; let bake slowly in a moderate oven for ½ hour.

Johnny Cake.—To 1 quart Indian meal add 7 tablespoonsful of cream little sour, ½ teaspoonful saleratus, ¼ do. salt; mix with sweet milk to a thin batter, and bake in a quick oven.

Cream Pancakes.—Mix well together a large spoonful of flour to ½ pint of cream; break in 2 eggs, and beat well till all is smooth; then add 2 ounces of fine white sugar, ½ teaspoonful of ground cinnamon and nutmeg. Fry them as you would griddle cakes.

Apple Pudding.—Peel, core and cut 10 good sized apples into a stew pan that will just hold them, with a little water; then add 4 yolks of eggs, 1 lemon, ½ nutmeg, ¼ pound of butter, with cinnamon, cloves and sugar to taste. Stew over a slow fire till quite soft; then roll it into paste the required thickness and let boil 1 hour.

Pomatum for the Hair.—Melt 4 ozs. of beef marrow, 1 ounce yellow wax, and 6 ounces of lard; perfume while cooling with oil of Bergamot or the essential oil of almonds.

Our own "*notion*" about hair is, that after washing it occasionally—not too often, say two or three times a week—in pure water, and combing daily, with a comb entirely free from all sharp points and handled so easily as

not to wound the skin about the roots, the best thing to do with it, is, *to let it alone.* A good head of hair is beautiful—is a very cupid's nest, over a fair face and a respectable share of brains. It is desirable to preserve it as long as possible; and to do this, after attending to our directions about washing and combing, let it alone. This is the cheapest hair preservative; and the cheapest, in this case, as in many others, is the best.

JEDDO:
Extent, Population, Buildings, &c.

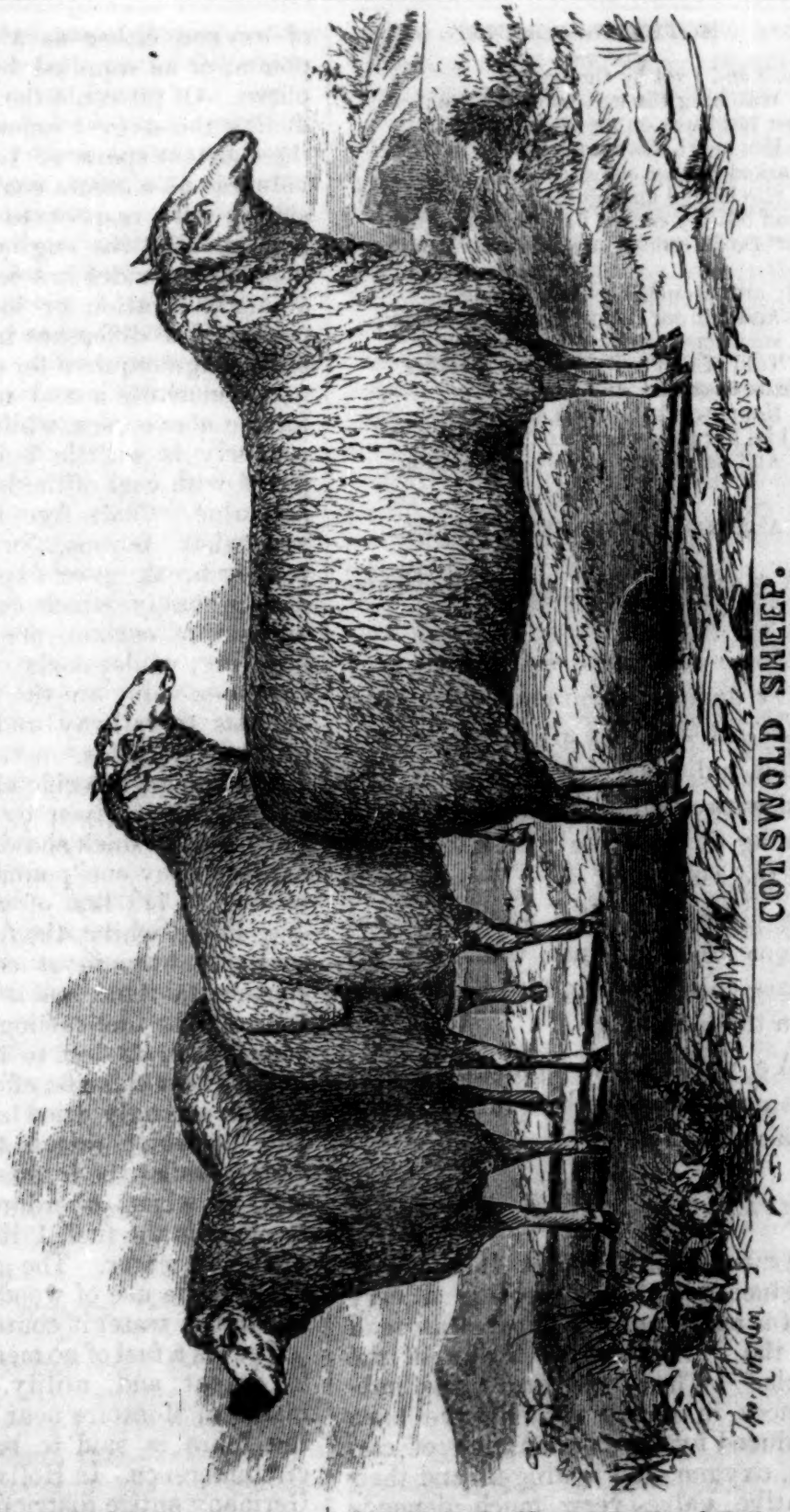
JEDDO covers more ground than London, with a population of three million. The Japanese say that no census is ever taken in Japan; that returns are made of the numbers of certain classes; but as the nobles, peasants, mechanics and women and children are omitted from these returns, they do not serve even as a basis for estimates of population.—The Japanese gave me a map of the city, but as it is constructed without reference to a scale it is of little value; even the compass bearings of different points in the city are incorrect. The streets generally are of good width and are well sewered, but they are all unpaved. No carriages are seen, a few hand-carts are used to transport heavy articles; canals intersect the city in various directions.

The chief feature of Jeddo is the "Castle," as it is called. This consists of four irregular circles, or rather polygons, all surrounded with moats or ditches. The three inner circles have stone walls, or a bank of earth faced with stone, and varying in height from twelve to thirty feet, according to the nature of the ground on which they were built. The gateways through the walls open into quadrangles of fifty to sixty feet, the gate of egress being placed at right-angles with the entrance gate. As a means of defense the Castle is unworthy of its name, except against assailants armed with bows and arrows. The moats are fordable, and are some eighty to one hundred and fifty feet wide spanned by neat wooden bridges. The inner polygon is occupied exclusively by the Emperor and his sons and families; the second by the Council of State and Princes; the third and fourth polygons by the Dimios, titular prices and high officers of the Government.

NO TIME.—We complain that we have "no time." An Indian Chief of the Six Nations one said a wiser thing than any philosopher. A white man remarked in his hearing that he had not time enough. "Well," replied Red Jacket gruffly, "I suppose you have *all there is?*" He is the wisest and best man who can crowd the most good actions into now.—*Emerson.*

☞ Some men think that the gratification of curiosity is the end of knowledge; some the love of fame; some the pleasures of dispute; some the necessity of supporting themselves by their knowledge; but the real use of all knowledge, is this, that we should dedicate that reason which was given us by God to the use and advantage of man.—*Lord Byron.*

GREAT LONGEVITY.—We notice the death of seven persons during the month of February, aged 100 years and upwards, and whose united ages amounted to 790 years. Four of them were negroes. Their names and place of death were as follows: Covington, La., "Pa Cæsar," colored, aged 138; Norfolk, Va., Sarah Mallory, colored, 126; Middletown, N. J., Zelphy Schanch, aged 119, and Aunt Kandas, 103—both colored; Squan Beach, N. J., Hannah Philips, 108; Port Matoon, Nova Scotia, John Maxwell, 102; Philadelphia, Mrs. Tracy Gray 100.—*German Reformed Messenger.*



COTSWOLD SHEEP.

The original Cotswold's were a large, long-legged, coarse-wooled, flat-ribbed sheep, shearing a heavy fleece of coarse wool.

The improved Cotswolds, as represented above, are a cross of the old Cotswolds with the Leicesters. They have been imported into this country by Messrs. Corning & Sotham of Albany, and we believe by others.

By crossing with the Leicester their size and fleece have been diminished, but their carcases have been much improved, their fattening properties advanced, and their maturity rendered much earlier.

MOTHER'S COMING.

Jane and I sat by the hearth
  Watching the embers of the fire;
Her head was on my shoulder laid,
  Her heart was drawn a little higher,
I asked her for one short kiss,
  She looked and blushed, and softly said,
And felt my ears so fiercely humming—
  "Do it quick! my mother's coming."

My arm around her then I flung,
  And felt our hearts together beating;
A smothered shriek a little smack—
  Told of two souls together meeting.
Years have fled, and I enjoy
  Happiness beyond all summing,
I kiss her now whene'er I like,
  And never hear of mother's coming.

A SINGULAR PHENOMENOM.

A SUBSCRIBER, writing from Mississippi, says;

"Some time ago we had a very heavy thunder storm and rain. After the rain I saw that all the water collected in ditches and pools was covered with a yellow dust. Some water leaking through the roof into a pail had the same dust on it; I suppose it was brimstone. If it was where did it come from? If not, what was it? Please enlighten me, for I have never seen the like before. W. K."

We venture the opinion, that it was not brimstone, but further have nothing to say.

COMPARATIVE VALUE OF FUELS.

At the South Wales Institute of Engineers October meeting a very useful and practical paper was read on the "Comparative Value of the Fuels." The fuels are those substances in nature which have been produced by the combination of carbon, oxygen, and hydrogen, and their relative value very much depends upon the proportions in which the carbon and hydrogen enter into their composition; whilst their entire consumption depends upon the presence of oxygen, either as a natural component or as supplied by the atmosphere. Of pit coals the varieties producing the largest amount of heat in the shortest space of time are most valuable as a steam coal—considered simply with respect to heating properties. But the engineer must employ other guides in selecting coal for steam navigation or locomotive purposes. The difference in the amount of stowage required for equal weights may constitute a coal most valuable for the above uses, whilst the heating property is a little below par compared with coal of the highest calorific value. Coals free from sulpher, somewhat porous, or which will readily break up on exposure to heat, and probably which contain a large amount of carbon, are required for smelting, whilst coals of the highest economic value are the touchstone of success to railway and steam navigation companies.

The lowest calorific effect obtained from wood as given by Count Rumford, is from thick shavings of oak, is expressed by one pound of this fuel raising 24,748 lbs. of water from 32 deg. Fahr., whilst the lowest of the series of bituminous coals is from a continental mine, and is expressed by 1 lb. of the fuel raising 43.9 lbs. of water from 32 deg. to 112 deg. Fahr. The highest calorific effect from wood is from strongly dried lime-tree wood, 1 lb. of which raised 40.131 lbs. of water, whilst the highest effect from coal is when Aberdare Company's Merthyr is the fuel, 1 lb. raising 77.-11 lbs. of water. The greatest drawback to the use of wood as fuel is the amount of water it contains.

Peat is a fuel of no mean importance in extent and utility. The great marsh of Montoire near the mouth of the Loire is said to be 150 miles in circumference. In Holland and North Germany entire districts are covered by peat formations, from which large quantities of fuel are annually furnished to various manufactories in their vicinity; and in Ireland we have

nearly 3,000,000 acres of peat moor, being above one-seventh of the whole island. The peat formations are a variety of marshy plants, such as sedges, reeds, rushes, mosses, amongst which the moss *sphagnum palustre* chiefly predominates; these have grown in stagnant water in a moist atmosphere and where evaporation has gone on slowly. At Cappoge, in Ireland, a process has been introduced whereby the peat is very highly compressed by a powerful hydraulic press. On leaving the press it occupies about one-third of its previous volume, whilst it is found to have lost about two-fifths of its weight from the quantity of water expelled, and it is said to have no tendency to re-absorb water. Mallet remarks that experiments at Wurtemberg show that a cubic foot of wood is equivalent to about 2¼ cubic feet of desiccated turf. The great objection to this kind of fuel is the high per centage of ash it contains, being sometimes so abundant as to render it quite useless, but some of the Irish peats seem tolerably pure. Peat also varies exceedingly in density—the heaviest varieties weighing as much as 1000 lbs. per cubic yard, whilst the lightest does not exceed 500 lbs. Compared with coal, as employed in furnaces, it is only about half as dense. The best varieties of prepared fuel from peat bear a very favorable comparison with dried wood, being found to contain about 10 per cent. more carbon, 2 per cent. more hydrogen and 12 per cent. less water.

WOMEN.

VARIED as the flowers of earth is the character of women; to a large garden may the whole sex be compared; rank weeds are found there, the sharp, stinging nettle and the poisonous nightshade; but likewise are seen blooms of rich beauty—plants of graceful growth—the scented rose and climbing jasmine—the painted tulip and the modest lily—all are met in the great parterre of the world blooming side by side, mingling either fragrance or poison with the air around. But the influence of a woman is as diversified as her character, whether in a domestic or public point of view. Two women may be placed in precisely the same circumstances socially, the one will diffuse happiness, the other destroy it; the one will give a perfect charm to life, the other make it almost a curse; and simply by a diversity of temperament producing different results. An ill-tempered, quarrelsome woman is a nuisance on the earth. An ill-tempered man is bad enough, but the perpetual "niggle" of a sour-tempered woman is insufferable; there is a meanness about her irritability which men do not generally possess. A man may swear and behave like a brute—such conduct is common as daisies in summer, but unless he be something below the level of a bully—and that is low enough—he won't keep up an incessant small-shot charge of hint and inuendo, and pettish rejoinder—for that is the style of these nettles of the human race, these vegetable blistering plasters of humanity—cross-grained women. Such women, without having anything of positive vice in their composition, do an immensity of harm; there is sorrow and trial enough in the world without ill-temper adding to the burden; a cheerful heart, and a cheering word of comfort it is woman's prerogative to bestow, and if she fails to exert her prerogative, she loses and deserves to lose, that supremacy over man she is born and destined to hold.—*Tait's Magazine.*

PRINCE ALFRED, the midshipman, when aboard ship with his messmates of the same age, or a little older than himself, throws off all restraint, and is literally one of themselves. No servant is allowed him, while he regularly stands his watch, sleeps in a coat, and pays, like every one else, twenty-five cents for his

daily mess. He is a kind-hearted, affectionate youth, and in some of his acts the careful training which he has received at the hands of his mother is clearly shown. If one of his shipmates is sea-sick or ill, he will, without being asked, take an amusing book and read to him. This has been often noticed in his treatment to a young officer on board, by the name of Gordon, and is an inborn trait of his character which may be noticed, and promises well for the future. A correspondent of the *Herald* says that it is rumored at Malta that his next cruise will be to Canada, his first landing place New York, and his first visit to the President. Those fond of hunting the British or other lions, will please take notice.

☞ A few years since an "errand man" lived in the goodly town of Pittsfield, against whom the sheriff had a warrant for commitment to the Lenox jail, for some trivial matter. The sheriff loved a good joke, and as his travel fees in the case would be rather light, he hit upon a plan to kill two birds with one stone, or rather to cage his bird, crack a joke, and save a small fee without a journey to the county boarding house. So he enclosed the warrant to the jailor in an envelope and without explaining the contents to his unsuspecting prisoner, hired him to carry the package to the jailer, directing him to wait for the answer. The man of errands pocketed the villainous document and his fee, carried himself to Lenox and slept that night in "durance vile," much to the amusement of the waggish sheriff, who had found a job for his victim, and paid him for doing it.

How to get the Greatest Lift of the Pike's Peak Gold.—Go to work and save your money, till you get $500; buy a piece of land, on such terms of payment, that you will have some money to work it with; then stay at some and drive your business; and you will get more gold than the average of those who go to Pike's Peak. Depend upon that.

YOUNG AMERICA FOR PIKE'S PEAK.

The Lafayette *Courier* says, a couple of fast specimens of Young America, the eldest not yet fourteen, the sons of respectable parents in this vicinity, were "captured" last Friday evening, in the act of tramping for Pike's Peak. They had packed up a quantity of provisions, a few cooking utensils, two blankets, and but a moderate supply of clothing. One of the boys had $26, which he had borrowed from the pantaloons pocket of his paternal parent the night before. The taking of the money led to the detection of the prodigal youngsters and the exposure of their plans. A dose of ramrod tea was administered to the young gentlemen, and they will probably be content to stay at home.

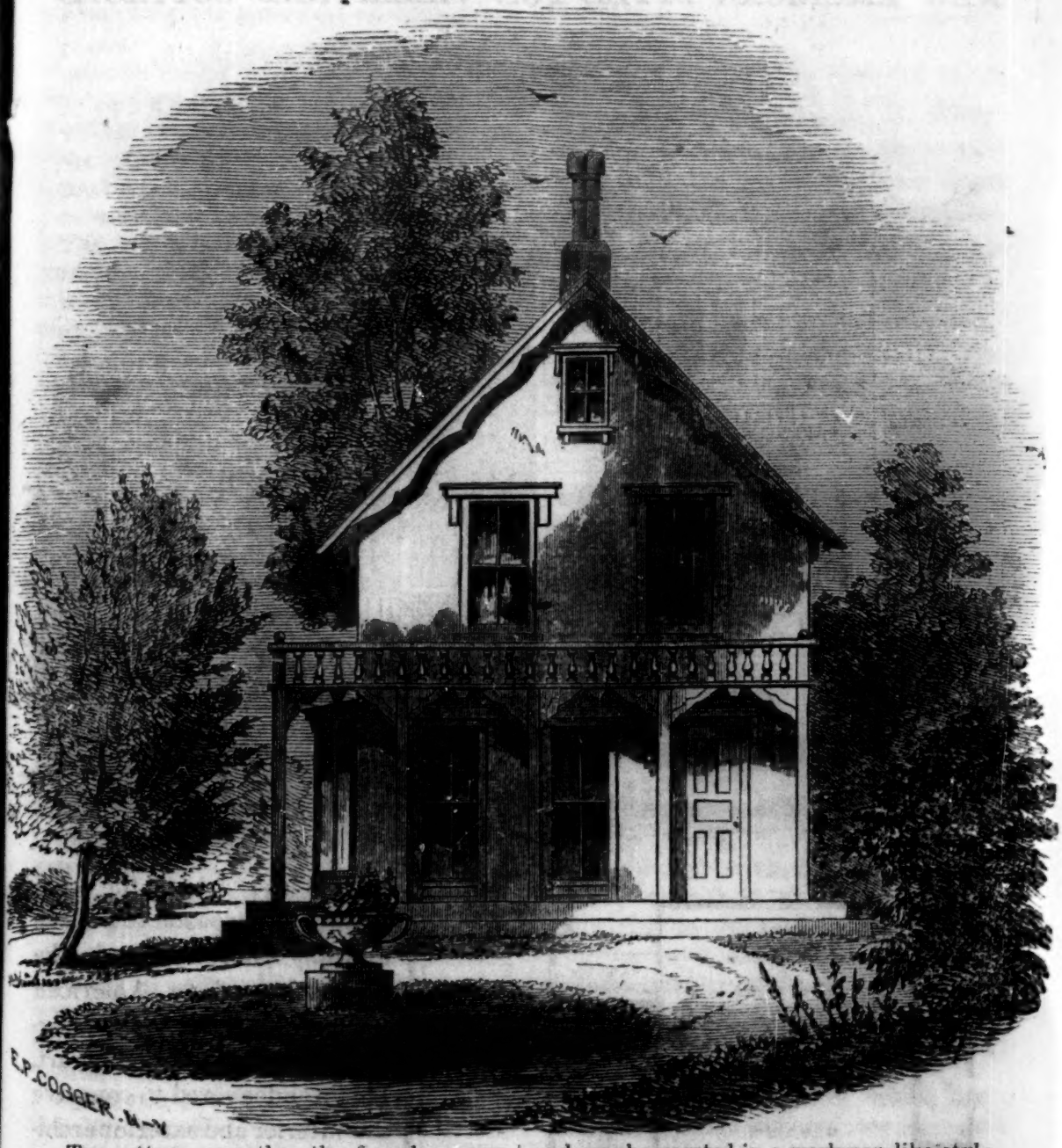
RAIN IN 1858.

The following table shows the quantity of rain that fell in this place during the last year, as marked by Mr. Watson's rain guage:

January,	9,289
February,	3,584
March,	3,155
April,	5,545
May,	3,260
June,	1,106
July,	909
August,	3,881
September,	140
October,	4,665
November,	3,194
December,	7,873
Total,	43,601

June, July, and September, it will be noticed, were the *dry* months.—January and December the *wet* months. The aggregate for the year, 43,601 inches, falls a fraction below—say one or two inches—an average, for a series of years.—*Beacon, Greensboro, Ala.*

RURAL COTTAGE.



The cottage, or rather the farm-house, as we may call it, above represented, is in strong contrast with the one represented on page 300 of this number as regards size, convenience and economy. If the one would better suit the fancy man, who makes his money more easily than by farming, and is intent upon a tasteful residence only for a small family, the other would better meet the views of the farmer, justly desirous of economizing expense, and requiring room not merely for a comfortable residence but for much of the work to be done on a farm.

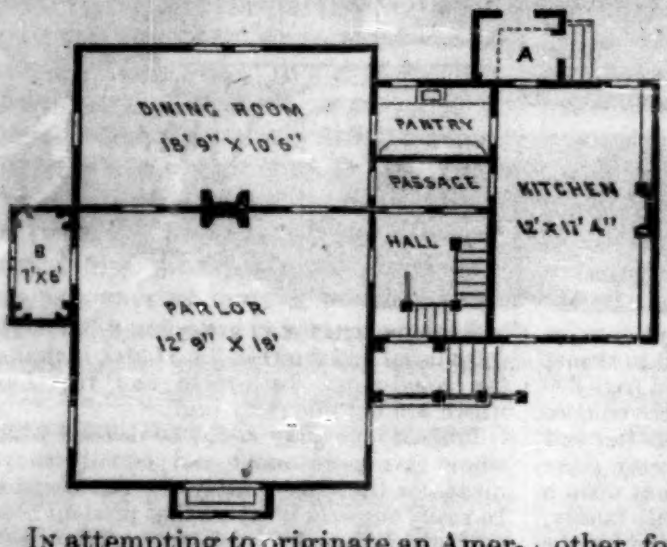
Besides a veranda, 8 feet wide, in front and on the garden side, and good sleeping rooms above, with a good deal of storage in the garret, it gives a parlor 18 feet by 14; a sitting-room 16x12; an entrance hall 9x4; two bed-rooms, one 10x9, the other 9x8; a store and pump-room 12x10; kitchen 16x12; side hall 11x4; bath-room 12x6; rear hall 12x4; and fuel room, adjoining the kitchen, 15x12; and can be erected in a workman-like style, substantial and durable, for $1,200, including the wood-room, bath-room and rear hall, which are but one story high.

Probably no plan could be devised which would give more room and equally convenient, for the same outlay for construction. In many respects it favors that prudent economy which farmers wish to combine with good taste, comfort, convenience and durability.

Great variety is desirable. We should wish no one style of building to become general. But this is one of the forms which we should like to see contributing to make up a pleasing variety.

In the residence of S. B. Ellithorp, Esq., of Elmira, N. Y., we understand this plan is fully carried out, at a cost of $1,200; and that he has a home, with which any reasonable man and family should be satisfied.

NEW AMERICAN STYLE FOR VILLAS AND COTTAGES.



In attempting to originate an American style I have cherished the same motives that have prompted other foreign architects to the same task within their respective countries; and as we are now beginning to appreciate what is true "art and the beautiful," I have reason to believe that my efforts towards the production of an American style will not fail to be recognized by every lover of art. I have endeavored to conceive the interior and exterior architecture as characteristic of the manners and customs of the people—combining all the grand principles and yet essentially different from all other foreign styles—to characterize the internal room on the exterior by certain characteristics and details; to produce a unity and harmony and lasting economy in the construction. To explain all of the principles would

occupy too much space at present. From this introduction I presume I can convey a comprehensive idea of my aims by the following brief description.

This example is the residence of a village merchant—characterized by the liberality with the external appearance of the details and the love of refinement and art by the statues. The bay window and statues are the representatives of the parlor, by being the richest part externally, as it is generally the richest room in appearance internally. The dining-room is characterized by the wide window and its details. The kitchen is disguised in this instance, from its situation—the entrance by being a distinct and interesting object in itself; main bed-room by the wide window over parlor—and the servants' room by the diminutive windows.

In regard to the plan—we enter a large hall—doors to every room from this hall—dining room communicating with kitchen by means of the two separate passages, one by hall passage, the other by butler's pantry. The kitchen has a dresser on one side of fire place and sink on the other. A, is a wood-house, or porch if desired; B is for the sole purpose of the lady of the house entertaining her morning visitors without using the parlor. On second floor are four bed-rooms, closet to each and a door from each room to hall stairs. There is also a linen closet and store-room. Combined with all of these comforts is beauty in every line. The interior is finely finished, cornices to all the rooms and the parlor decorated. The interior wood-work is painted light quince in two tints; the exterior two tints of same color, but darker shades; roof of tin painted light ultramarine-blue. The whole appearance has such an air of repose, of unity and interest that it is always a picture and will always be so to every observer. The cost was $2,200 complete; but with a plain interior finish, it can be built for $1,850. L. B. VALK, *Architect*,
627 Broadway, New York.

GRAND PA'S LETTER TO BOYS.

LETTER SIXTH.—PROFANE SWEARING.

Dear boys, my last letter, I think, was on the importance of always *telling the truth* I hope you considered it well, and have resolved on doing so. If you have, then I have encouragement to go on giving you some advice about other things.

There is a very bad habit, which I have observed to be common among boys—it is *profane swearing*. This is a very wicked, bad habit, and I hope you will never be guilty of it.

You cannot conceive how bad it makes me feel, when I hear a lovely interesting little boy uttering a profane oath. It almost makes me shudder. It seems to spoil all his beauty and loveliness, and if I had formed a good opinion of the boy before, this makes me change my mind respecting him. O! I think, what a pity it is that such an interesting and promising boy, should befoul his mouth with such profane language. How sincerely do I wish that such a fine looking boy had never acquired such an ugly and wicked habit. I think surely that boy has not got right views of his duty—he does not love God, or he would not thus violate his commandment, and take his name in vain, and a boy that does not love God, and fear to offend him, is a very hopeless boy.

I know of no habit of which boys are guilty, that evinces more depravity than profane swearing. It is a most useless practice. I can see no good purpose that it can answer. It does not gratify the passions when a boy is angry—it does not make him appear more brave, or more formidable in the view of others; on the contrary, I have known some of the greatest cowards, who were the most profane swearers—what they lacked in courage and ability, they made up in profanity.

But besides the uselessness, and

wickedness of swearing, it is extremly *impolite*. A true gentleman never swears. He thinks it vulgar, and beneath the character of a gentleman. A polite and well bred person is always careful to avoid giving offence to any individual in his presence.

Now, it is a very rare thing to be in any company, where there is not some one, in whose ear a profane oath would sound harsh and unpleasant. Therefore a gentleman will not swear, for fear of giving offence—he considers it a breach of politeness.—What is the reason that even those who are in the habit of swearing, will not swear in the presence of ladies? It is because they know it is to be vulgar, and impolite.

I have known persons who indulged themselves in the habit of swearing to such a degree, that they would often swear without knowing it—they would scarcely speak a word without uttering an oath. This is truly a pitiable case to be in, and a lamentable instance of the force of habit, and the great danger of indulging in any sin whatever.

As a further proof of the evil consequences of profane swearing, I will ask you where will you find the best and most useful men? Will you find them in the class of profane swearers, or amongst those who will not swear? I think you must admit that they will be found among the latter. There are very few men who swear, but will acknowledge that it is wrong, and regret that they ever got into the habit of it. Be careful then my dear boys, and never allow yourselves to get into any habit that you will have reason to regret in future life. Remember that it is much more difficult to break off from a bad habit, than to acquire it. Take the advice then of your Grand Pa, and never allow yourselves to get into the habit of profane swearing; and if you have already acquired the habit, break off immediately. This is the advice of your

GRAND PA.

ABOUT THE POTATO BLIGHT.

BRIGHTON, Aug. 13, 1858.

"FARMERS' CLUB;"—Gentlemen, I am aware that so much has been said and written on the subject of the potato disease, that it must be difficult to awaken an interest in any new theory on this subject, and have been striving in vain to quiet my conscience without stating my observations.

But as I went into our garden this morning and so many of the insects at work, which I think are doing the mischief, I cannot forbear describing them to you, that farmers may examine their crops and find whether they have not got the same,—if this short lived thing has not disappeared before this reaches you.

The first year that this disease appeared, a lady who had a vegetable garden near her door, observed to me that wherever a pumpkin vine crossed a hill of potatoes they were sound, while all around them were more or less decayed, and that she intended having them planted together for the future. This induced me to seek the cause, which I think is a chintz-bug, similar to the striped bright yellow and black bug that is so destructive to cucumbers, but is rather large, and more robust, and is a dull orange and black striped. They have already eaten the leaves freely in a damp section of our garden and are still at work.

The first suggestion that the pumpkin vine was a protection, has induced me to read many articles on this subject, hoping to find some confirmation in agricultural papers.—Two or three years since, I saw an article in one of these, stating that an Ohio farmer found, that where he had pumpkins among his potatoes they were saved, while others were decayed, and that he recommended others to plant in that way, although he could only state the fact without explaining the cause.

My theory is that this insect pre-

fers the vine, when at hand, thus sparing the potato. One reason for this opinion is that a neighbor found his potatoes sound about a heap of coal ashes, while all around were more or less decayed, which I attribute to properties in those ashes obnoxious to insects.

If this theory is correct, it not only points out the cause, but also a remedy, at least in part, in the coal ashes, and the vine, and as the experiment would be inexpensive, and easily tried, may not the writer hope that its corrrectness will be tested another season.

It has been so much the practice of late for "women" to push themselves into unbecoming positions in society, that every lady of right views of decorum must shrink from anything that savors of such a course, but this should only stimulate others to be more useful, and more justly entitled to the respect of the community.

There are some of our sex that are as if it were by nature, in love with agricultural pursuits, and experiments, and who read the proceedings of your "club" with interest, and among them is your correspondent.

C. E. E.

April 25th, 1859

Mr. NASH.—I have just found this old note, which I had not the confidence to send last Fall,—but as it is now planting time, I venture to forward it to *you*, hoping my theory may be tested. C. E. E.

Now gentlemen farmers, and all who cultivate a piece of ground, you have a request from a lady of true womanly modesty and worth, as her letter sufficiently indicates, and as we would vouch for her, if it were at all necessary. She asks that you will "test the correctness of her theory." Well, it is a thing very easily done. The ladies—such ladies as this writer, at least—are not apt to ask hard things of us; and now let us try the experiments with pumpkin vines and with coal ashes.

If by possibility the potato disease is owing to the vitality of the plant being weakened by the feeding of insects on its foliage, (we can hardly believe it is,) the fact may be ascertained in one season and put it beyond a doubt.

The theory, that these insects prefer the pumpkin leaves and so let the potatoes alone, is certainly plausible.

The idea that coal ashes offend the insects by its odor seems hardly as plausible, yet it may be true.

BOOK NOTICES, &c.

THE EMPIRE OF AUSTRIA; by John S. C. Abbott. Mason Bros. Publishers, New York.

This History of the Austrian Empire from its foundation in the House of Hapsburg till the commencement of the present century, will possess peculiar interest, at this time, when war between that and other European Powers is imminent.

To say that John S. C. Abbott is its author, is saying all that need be said in its praise

---

THE CROPS.—Accounts from every part of the country speak favorably of the Winter cerials. It would seem that in most regions the Spring is hitherto cold and and unfavorable to putting in crops. Of course nothing yet can be decisively concluded with regard to the coming season; but we regard present appearances as rather more than usually favorable.

NEW YORK CATTLE MARKET.

WEDNESDAY, April 27.

BEEVES.

The trade has been to a fair extent at a reduction of ½@¾c. ₱ lb., mainly caused by the increased stock of 789 head. The average price was 9¾@10c. The rate for extra was 12@12½c., and other grades 9@11¼c. The quality was on the average scarcely as good as last week.

PRICES OF BEEF CATTLE.

	To-day.	Last week.
Premium quality,	12 @12½	12½@13
Best quality,	11 @11½	11½@12
Medium quality,	11 @11½	10½@11
Inferior,	8½@ 9½	9 @ 9½
General selling prices,	8½@11½	9 @12
Average about	9¾@10	10½

MILCH COWS.

The business is very moderate, and prices are steady. Sales at $25@$70, according to quality: some few extra as high as $100 each for family use

VEAL CALVES

Are in moderate demand at full former prices. We quote at 3@6½c. Sales generally at 4½c., according to quality.

SWINE

Are selling at 5¼a5½c. for corn fed Western. The receipts have been 4,868 head.

SHEEP AND LAMBS.

The trade is moderate and rather better than last week, and prices are a shade higher; 12a14cts. dressed, 5a7cts. alive, and $8a $9 per head. Lambs, of extra quality, sell at $5a$6.

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Its weight (largest size) is 1500 lbs., and yet it can be boxed, with the exception of the wheels and lever, in a space of 10 feet long by 15 inches square. It is made of wrought iron, of a peculiar quality, capable of sustaining 57 tons to the inch.

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W. W. WILLIS.

Orange, Mass., Sept. 20, 1858. oct tf

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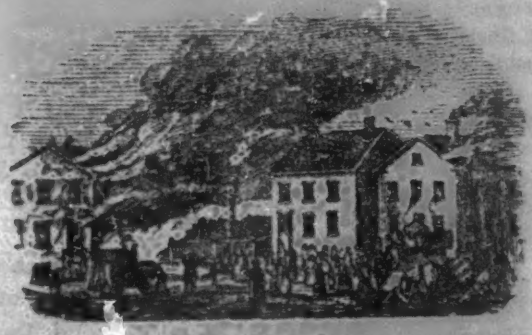

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